Contributors

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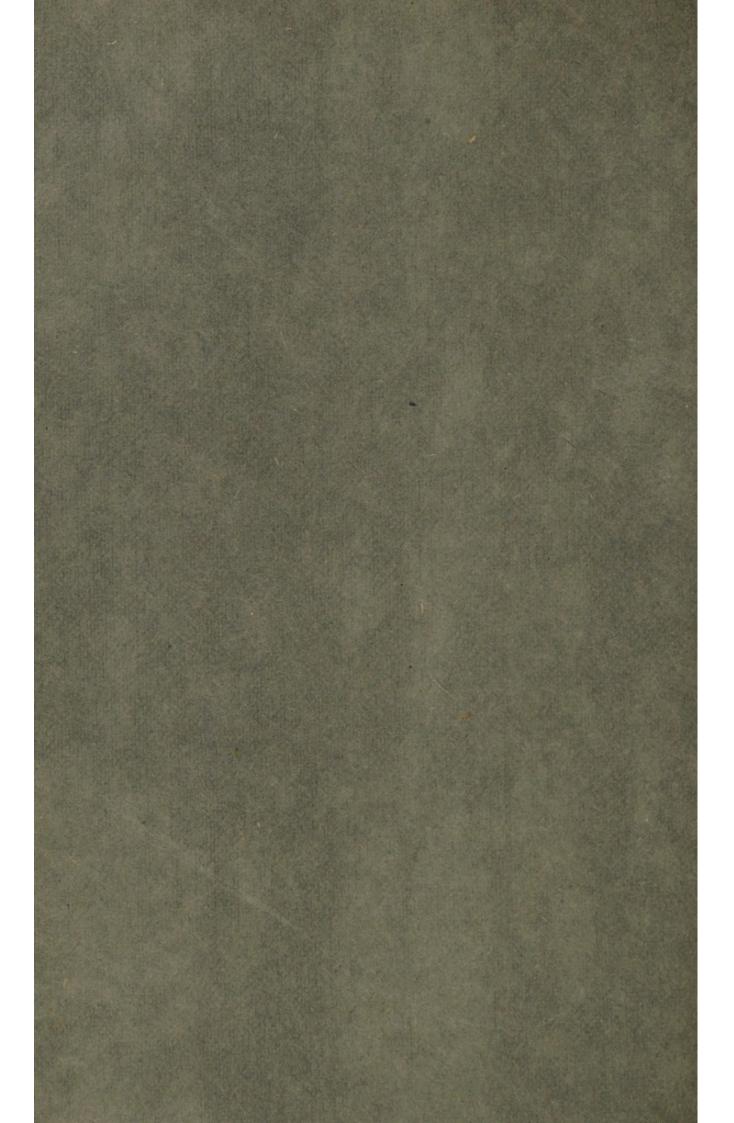
By

DR. ARTHUR KING, D.P.H., MEDICAL OFFICER OF HEALTH.

WATFORD

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1920.



Report on the Sanitary Condition of the Urban District of Watford.

TO THE CHAIRMAN AND MEMBERS OF THE WATFORD

URBAN DISTRICT COUNCIL.

GENTLEMEN,

I have pleasure in presenting my Annual Report on the Sanitary Condition of the Watford Urban District for the year 1919.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

The population of the Watford Urban District was 40,939 at the Census of 1911.

The population estimated by the Registrar General for 1919 is 48,113 for Birth Rate purposes and 46,187 for calculating the Death Rate.

I do not know what data the Registrar General has at his disposal for arriving at these calculations, but I should be inclined to think that the first figure would be a fairly safe one to take as correct at the present time.

The greater part of Watford stands fairly high with the River Colne running into the District on the East side. This river takes a bend at the Gas Works and goes almost due West for some distance then turns South and leaves the District.

A large part of our Western boundary is formed by another river, the Gade, which running almost due North and South, has the Grand Junction Canal in near proximity, but just the other side of our boundary. Most of the more thickly inhabited portions of the District stands considerably higher than the river level.

An important matter is that the River Colne after it enters our District is subject to floods in the winter time, should there be a long spell of wet weather.

These appear to be partly due to the bed of the Stream not being kept properly cleaned out by the riparian owners and the advice of Counsel on this point is that the law gives us no right to insist on this very necessary work being done.

The Physical feature of most importance is that Watford is situated on the band of chalk running across England, S.W. to N.E., from Salisbury Plain to Norfolk, and that this is covered by a considerable thickness of gravel that forms a most valuable protection against dampness.

The proximity of Cassiobury Park, a part of which was purchased by the Council some years ago for the use of the public, the absence of any grave smoke nuisance from Factories, and the favourable conditions of the soil and subsoil for habitations, altogether provide an environment for the inhabitants that is very satisfactory.

When I add that there are no privies, and that the Water Supply comes from deep wells in the chalk, the picture of the Natural Conditions of the District is a very favourable one.

The Social conditions are on the whole comparatively satisfactory, as none of the occupations of the industrial part of the population are conspicuously unhealthy, and do not entail the employment of a large number of married women.

The Industries of Watford may be enumerated as follows: — Different employments on the London and North Western Railway, Breweries, Printing Works, Chocolate Factory, Speedometer Works, Motor Factories, and other Engineering works. A good deal of building commenced towards the end of the year and this increased the number of workers in this industry.

Of all the employers of labour the Watford Manufacturing Co. stands out pre-eminently as the premier firm for caring for the needs of its employees. Everything is done to make their environment as healthy as possible, and every means is taken to ensure their physical well being.

BIRTHS.

The number of births for Watford during 1919 was again a phenomenally small one, being 624. It compared, however, with the still lower figure of 596 in 1918, and showed a return to the 1917 conditions when there were 625 Births

The Birth Rate is very small compared with all other parts of the Country both Urban and Rural. It is 12.9 an improvement over 11.8 in the year before, but as the Rate for all England and Wales is 18.5; for 96 Great Towns, 19; for 148 smaller towns, 18.3, Watford is clearly, considerably below the average of other parts of the Country.

At the time of writing the births notified already, lead one to expect an early return to more normal conditions.

Considering the overcrowding and impossibility of many people getting housing accommodation, the decrease in births is not surprising or even from some points of view very much to be deplored.

DEATHS.

The deaths during 1919 were not so numerous as in the previous year, there being 509 in place of 577.

As there were only 39 fatal cases of Influenza against 140 in 1918, this will more than account for the decrease.

The death rate per 1,000 of the civilian Population is 11, compared with 12,8 in 1918.

Comparisons have to be made with an unusually low figure, if we wish to consider our rate in relation to England and Wales. Usually we are much lower, but in 1919 our rate of 11 compares with 13.8 for England and Wales, and 12.6 for 148 smaller towns. These last figures were, in 1918, 17.6 and 16.1 respectively.

The following statement will make clear the different points of importance connected with Births and Deaths in the District: BIRTH RATE, DEATH RATE AND ANALYSIS OF MORTALITY DURING 1919.

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	1	1 -	
Percentage of Total Deaths.	Uncertified causes of douth.	0.00	1,30
	Inquest Cases.	1.96	6.2
	Certified Cases.	98.03	97.5
per rths.	Deaths in Public Institutions.	23,3	23.9
	Total Deaths under I Jear.	68.9	89.0
Annual Death Rate per 1,000 civilian Rate 1,000 Bi	Diarrhea & Enteritis (under two years).	4.80	9.69
	Violence.	0.19	0.47
	Diphtheria.	0.02	0.13
	.AzuoO zaiqood N	0 13	0.07
	Scarlet Fever.	0.00	0.03
	Measles.	0.28	0,10
	xoA llsm2	0.00	00.0
	Enteric Ferer.	0.00	10.0
	ALL CAUSES	11.0	13.8
	Birth Rate per 1,000 of Total Population.	12.9	18.9
		WATFORD.	ENGLAND & WALES.

The above table shows that the comparison with the whole country is favourable to Watford. We are, however, considerably below the standard of the whole Country in Births, and the Death Rates for Measles and Whooping Cough exceed those in other parts of the Country. I offer no solution to the first figure, but with regard to Deaths from Measles and Whooping Cough, both these diseases were very prevalent in Watford during the time under consideration, and consequently might be expected to contribute a larger number of deaths in Watford than in the Country taken as a whole.

It is satisfactory that both the infantile mortality and the death rate from Diarrhoea are both comparatively low. The former figure, it will be seen, is only 68.9, compared with 89 in all England and Wales. The figure for the previous year in Watford was 68.7.

The average amount of poor relief per week during 1919 was £85.

With regard to the Hospitals, these consist of: —The Watford District Hospital, 34 beds; a new Massage and Electricity Hospital, primarily started for demobilised soldiers, but intended, eventually, to be thrown open to the public; and lastly the Watford Union Infirmary.

The first Institution is generally full to overflowing, and an effort is being made to raise the necessary funds for erecting a new one, with much increased accommodation as a Peace Memorial.

The new Massage and Electrical Treatment Hospital is a most efficiently equipped Hospital of its kind, and originated under the auspices of the Red Cross Society.

The organisation of th's Hospital has been largely done by Mrs. Morten Turner, who spent both time and money unstintingly on the Watford V.A.D. Hospital during the War.

The Watford Infirmary is a large one (139 beds), thoroughly equipped, and well staffed. As there is every convenience here for both operation and after treatment, many cases are taken in that are not strictly of the pauper class, and Mr. Mc Clure comes from the Temperance itospital, London, to the Watford Union Infirmary once a week to undertake operations, and in this way the Infirmary acts efficiently as a relief to the District Hospital. Particulars of the Isolation Hospital appear at the end of this report.

SANITARY CIRCUMSTANCES OF THE DISTRICT.

WATER.

The Watford Urban District Council has its own Water Works, and supplies nearly all the District, a small portion of the Oxhey Ward being in the area over which the Colne Valey Water Works have power of supply.

It was found some years before the war that after a long spell of dry weather, the level of the Water sunk to a point verging on the dangerous, and accordingly a scheme was proposed and adopted by the Watford Urban District Council for sinking new wells, for a new reservoir placed in a sufficiently high position, and a softening plant.

The first and last were completed in 1916, and we have now for some time been drawing our supply from the new wells.

The following information with reference to the new Water Works has been given by Mr. D. Waterhouse, Engineer and Surveyor.

In 1916 a new Pumping Station at Watford Fields superseded the old works, and the water is now pumped from four 36in. diameter bore wells, 350 feet deep, connected by 150 feet of headings to a 6in. diam. well, and a 30in. bore.

The Station is equipped with two Triple Expansion High-Duty Worthington Pumping Engines, one of which is used as a stand-by, and either is capable of delivering about 3½ million gallons per day. This plant is steamed from two 30ft. by 8ft. 6in. Lancashire Boilers, having Superheaters and Economiser, and fitted with Mechanical Stokers, electrically driven. The Station is also equipped with a Fitting Shop, containing Lathes, Drilling, and Shaping machines.

In a separate building adjoining the Pumping Station, a "Haines" Softening Plant has been installed, whereby the water is softened before delivery to the town.

The Water Scheme is not complete until a new Reservoir of 2 million gallons capacity is constructed at Merry Hill, Bushey, and when this is completed additional pressure will be obtained for the town supply. The estimated quantity of water supplied for all purposes during the year ended March 31st, 1919, was 426,316,058 gallons.

The water is analysed once a quarter by Messrs. Thresh and Beale, and is always found to be pure and satisfactory.

Considerable difficulty has been experienced with the softening. The system is Haines, and quite satisfactory itself. Owing to the War, and the economic conditions since, both the lime and filter cloths have been much dearer, and the latter apparently of inferior quality, and exhibiting a peculiar tendency to develop a mouldy growth on the surface.

The plant is capable of reducing the hardness from 21 degress to 7 degrees, but during the year under conation we have been content with considerably less reduction than the last figure.

RIVERS AND STREAMS.

Trouble has arisen owing to the flooding of a considerable area through the breaking of the banks of the Mill Stream supplying motive power to the Flour Mill in the occupation of Messrs. Bailey.

The Mill Stream had been constructed many years ago by the Abbots of St. Albans, to give an adequate head of water for driving the mill, which then formed part of the property of the Abbey, so that to the ordinary intelligence it would seem that their successors were responsible for keeping the banks in repair.

This Messrs. Bailey apparently seemed to think themselves, as they gave instructions for repairs to be made, but not, I believe, till the leakage had become of a serious nature. The efforts on their behalf were unsuccessful, and the time came when the flooded area in the hot weather became very offensive, and, in my opinion, a danger to health.

Everything was done to mitigate the insanitary conditions and I made urgent representations to my Council that they should see that the cause of the flooding should be removed.

Then the whole question developed into a legal one, and as is usual under these circumstances, the main Public Health question—the prevention of the nuisance—sank into insignificance compared with the all-absorbing importance of a legal squabble. Months of this squalid controversy dragged on, and the final result was that the Urban District Council, on the advice of their Consulting Engineer, made good the Mill Stream bank, deepened the bed of the Mill Stream, making good the foot-paths and bank from the Bridge to Sedgwick's Brewery; a certain amount being contributed to the expenses by Messrs. Bailey.

This stopped the nuisance of flooding but the result of deepening the bed of the Mill Stream has been to divert the flow of water almost entirely into this channel leaving the normal river bed almost dry.

This condition of matters has been helped by the choked up condition of the latter both in our District and below our boundary.

The danger is, that if the present state of matters continues through the summer, the river bed may become a nuisance, and it is manifest that it should, before that time arrives, be cleaned out, and, if necessary, deepened to take some of the water which now flows into the Mill Stream.

As pointed out already, the Watford Urban District Council have no power to call upon the owners to do this and it seems unfair that the expenses should fall upon the Council.

The result will probably be that nothing will be done.

DRAINAGE AND SEWERAGE.

The drainage and sewerage of a large part of Watford where the houses have been erected comparatively recently are satisfactory, but in the older portions of the town there exists a considerable number of defective house drains, and the overhauling of the older sewers that was in hand when the War broke out has been in abeyance since 1915.

The great difficulty with the house drainage lies in the combined drain or sewer taking the sewage of two or more houses.

The owners of property in almost every case claim that the majority of the work of renovation is a matter for the Urban Council to do and pay for, and this places heavy expenditure on the Rates.

Were a systematic testing of all house drains in the District undertaken I feel confident that enough defects would be found to lay the Council open to the expenditure of a very large sum of money—expenditure that in my opinion should fall upon the owners of the property.

Until some further legislation takes place to settle on the definition of drain and sewer that will place the responsibility on the right shoulders of remodelling defective house drains the Council cannot undertake the extensive condemnation that should take place and has to confine itself to taking action in those instances only where, due to the occurrence of infectious disease or complaints of a nuisance, the case appears to be especially urgent.

With regard to the remainder of the old sewers that have not yet been investigated, the Council have decided that an estimate of the expense involved in this work should be made and the necessary sanction applied for.

SEWAGE DISPOSAL.

The sewage is disposed of by pumping it on to Holywell Farm and on a portion of what used to be Harwoods Farm, amounting in all to 226 acres.

Some of this land lies low abutting on the Rivers Colne and Gade, and this is not used for sewage disposal.

The sewage is partly pumped directly on to the land; while that coming from the lower portions of the Town is raised by the agency of Shone Ejectors.

The soil of the Farms is ideal for the purpose of broad irrigation there being a maximum depth of 40 or 50 feet of gravel which forms a natural filter bed of perfect efficiency all over the area used.

It would be difficult, I think, to find natural conditions of a nature so perfectly fitted for the purification of sewage as exist at the Watford Sewage Farm.

So well does the land deal with the sewage that there is practically no effluent into the adjoining streams. The only material gaining admittance is the storm water from those areas where there is a separate **system** of sewerage and where, owing to sudden excessive rain-fall, more of this is discharged directly into the river instead of being taken on to the land.

CLOSET ACCOMMODATION.

Watford is in a specially favoured position with regard to closet accommodation, there being only one instance of a privy in the whole District and this occurs at a house where the level will not permit of the necessary fall for a water closet.

The chief unsatisfactory item is that some of the pans in the old property are of an obsolete type and that in Districts where the housing is of the lowest standard the closets are frequently fouled by the careless use of the occupiers.

A systematic visitation of the Courts and Alleys is made at least once a week and every possible means taken to ensure cleanliness of the closet accommodation.

Most of the property where this occurs has been scheduled by the Council to be dealt with under the Housing Acts and most of it will be pulled down as soon as other houses are available.

It is to be hoped that better environment will induce more careful habits in the people and remove the quite unnecessary drawback to an otherwise satisfactory system of closet accommodation.

SCAVENGING.

The house refuse is removed from the houses once a week and this appears to be sufficiently often. All houses are provided with movable ashbins with covers so that the scavanging can be done expeditiously and thoroughly.

When the new area comes into our District, as arranged at the County Council Enquiry during the War, we shall have some houses with cess-pools. These, however, we shall as soon as possible do away with calling upon the owners to connect with the sewers where they exist within reasonable distance.

The house refuse is dealt with at the Destructor which is capable of dealing with it all and any increase from extensions to the Town for some time to come.

The energy derived from this source is used for pumping the sewage and goes a long way to supply the necessary power for this purpose.

At the time of writing new arrangements are being made for collecting the house refuse in Electrically Driven Vehicles, and it is claimed that this will effect a material reduction in the cost of the work.

The amount of work done by the destructor during the year was as follows :----

	rous.	ewis.	qrs.
Average amount of refuse destroyed per			
week from town	165	0	0
Refuse from Old Heap		Nil	
Private refuse per week	5	0	0
Dogs, cats, and other carcases destroyed		nerous	

SANITARY INSPECTION OF THE DISTRICT.

Although the Statutory Notices served during the year were numerous a larger number still of informal notices were served, and the reason for this is that such notices are generally effective, and are less likely to cause any resentment from the recipient than the formal ones.

PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYELAWS AND REGULATIONS.

The Common Lodging Houses amounting to three are kept in a fairly satisfactory condition. Two of these are in the Ballard's Building area that has been scheduled by the Council as an "unhealthy area" and will be eventually demolished.

As there is practically no real need for such places in Watford I advise the Council that when these are done away with it should not countenance the opening of any others in their place.

The only offensive trade of importance in the District is that of Fish fryer. There are twelve shops carrying on this trade, and although any shop of this description cannot help being more or less of a nuisance to those living in the immediate vicinity they all comply with the usual requirements with regard to the use of the best methods for carrying the fumes through the fire and conducting them up the cowled flue into the chimney.

I think that in this case and in all others of offensive trades a measure of local option should be accorded to those living all round to insist, if they so wish that the trade be removed from their midst.

OTHER SANITARY CONDITIONS REQUIRING NOTICE.

Considering the importance of Food Production of

Tons owts and

late years great leniency has been exercised with regard to the keeping of pigs and fowls within the District.

The great point I have insisted upon has been cleanliness, and if this is ensured the danger of these animals being a nuisance is greatly reduced.

In this connection I think it a matter of the greatest importance that pigs, and especially fowls, should be kept in quarters efficiently protected from rain.

It is impossible to keep pigs in a sanitary condition during wet weather if they have an uncovered run unless it is of some impervious material, and fowls in confinement will always be a nuisance if their droppings are not protected from wet. If kept in houses and runs the ground of which is kept absolutely dry during all kinds of weather, fowls with very moderate care in the matter of cleanliness will keep in health themselves and be no cause of nuisance or danger to the health of people in whose back yards they may be kept in close proximity to the house.

Yet no Act, Byelaw, or Regulation gives the Sanitary Inspector any authority to insist on this very simple and elementary point.

SCHOOLS.

Watford, I believe, is one of few, if not the only place of its size and importance that resigned the management of its Public Elementary Schools and placed them under the administration of the County.

With regard to Medical Inspection, when the Act was passed arranging for this, it was laid down that the Medical Officer of Health of the Education 'Authority in each district should be the School Medical Officer

Had Watford retained its position as Education Authority this would have meant that the Council's Medical Officer of Health would have been the School Medical Officer, but Watford being under the County Council for School purposes was roped in with all the rest of the County both rural and urban, with the County Medical Officer of Health as the School Medical Officer.

Lieut.-Col. F. S. Freemantle, County Medical Officer at the time, and now M.P. for the St. Albans Division of the County, did his best, however, to bring about a satisfactory arrangement that would give the necessary coordination between School Inspection and Public Health Work not only in Watford but over the whole County. He recommended the County Council to appoint the Medical Officer of Health of each District as School Medical Inspector, and this was done with, I believe, very satisfactory results

The County School Medical Officer acts as general administrator, and the Medical Officers of Health all over the County do the Medical Inspection and supply the necessary information for his yearly report.

With regard to Watford, half of the work of Medical Inspection is done by Dr. J. Buchanan, who was School Doctor to the Watford Education Authority before it was replaced by the County Council.

With regard to the year's work the best course will be for me to append the report for this district supplied to the County School Medical Officer to enable him to compile his report for the whole County.

SCHOOL REPORT, 1919.

During the year 1919 many of the difficulties of Medical Inspections due to the War have disappeared and before the end of the year all the schools were restored to their legitimate occupants and in most cases absent teachers had returned.

The engagement of an additional School Nurse has enabled the work of ensuring *greater cleanliness* to be carried on more efficiently.

Certain schools still contain a fair percentage of chronically recurring cases of uncleanliness, but the children in question are largely drawn from the Courts and Alleys of the town where the home conditions are very bad and very little alteration can be expected here until better housing accommodation is provided.

Many of the homes of these are situated in areas that have already been scheduled under the Housing Acts, as areas that will be dealt with as soon as ever new houses are provided for the families displaced by the clearing away of many houses quite incapable of being made habitable.

With regard to the schools themselves, I have previously made recommendations for certain alterations that appeared to me advisable from a sanitary point of view, but nothing has been done at present As these recommendations have appeared in previous reports and have been repeated many times already, perhaps the most sensible course is to refer to the reports in question, rather than go over all the points in detail, a proceeding that might give unnecessary trouble to those who have already come to the conclusion that they are not worth practical consideration.

One question I cannot omit mentioning, even at the risk of my suggestions being disregarded, and this in the inadequate accommodation at the Special School. As I mentioned last year we have the one room for all purposes; Assembling, General Teaching Purposes, Manual Instruction and Physical and Musical Drill. The work carried on at this school is remarkably good considering the difficulties I have named, but any casual visitor can see in a few minutes how great these difficulties are,

One of the most important agencies in encouraging the better development of the limited mental material of the children in such a school is an improved environment —surroundings likely to stimulate every form of mental activity capable of cultivation—and I am confident that, good as the work is, the best results can never be obtained under the present restricted conditions, nor can the question be satisfactorily settled without considering the special need of the mentally deficient for fresh air, a need even more urgent for this class of children than for those whose mental development is of a normal character. More specific suggestions on this subject I will postpone till a later part of my report.

Another series of schools I cannot avoid mentioning is that comprising the Church of England Boys', Girls', and Infants'. These are buildings erected when the Church of England was the only body that took very much interest in the education of the industrial class and, dating back some considerable time, the accommodation partakes somewhat of the character of the times when the schools were built.

For present needs they are quite inadequate, and being in the centre of the town, they are largely attended by children from the more congested and poorer districts.

To satisfy the needs of these children, the accommodation should be of the best in order to compensate to some degree for the somewhat sordid home conditions and to provide a standard of education that would be a moral lesson in addition to the ordinary school curriculum. Instead of this they are the most badly equipped schools in the town for the purposes for which they are intended.

Several of the schools have no accommodation whatever for proper Medical Inspection. In the Church of England Boys and Girls, and Holy Rood schools inspection has to take place in a class room where other children are being taught, or where they have been removed to some unsuitable quarters; at Oxhey School, either a class room or the room used for cookery instruction has to be used; and at Watford Fields, either a class room with a wood and glass partition separating it from the hall where drilling goes on during inspection, or a small cloak room are the only places available.

PHYSICAL RECORDS.

The effect of War restriction on food does not seem to have had any prejudicial result on the *nutrition* of the children. Undoubtedly, the overcrowding that has existed for some time now is very injurious to the health of the children, but I am inclined to think that this will fall more heavily on the very young before they reach school age.

The question of *cleanliness* has already been considered. A large number of cases of *defective vision* exist amongst the children, but now that the County Council have undertaken the provision of glasses the probability is that treatment being carried out at an earlier stage will greatly reduce the severity of this defect.

With regard to *teeth*, an appreciable improvement is noticeable. Although the work of the Dental Centre has only been of a limited character it has been going on for a number of years and is showing gratifying results, which, although small at present, will still further increase now that the Centre is open twice a week. When the County Council take over the Centre entirely, I trust a whole time Dentist will be allocated for Watford and District.

The number of cases of *Scabies* amongst the children has been reduced to a minimum.

During the year the number of children where there was reason to suspect some form of *Tuberculosis Infection* was small. A large number had appreciable enlargements of the submaxillary and cervical glands, and many of these appeared to have no connection with either verminous heads or carious teeth, but whether the Tubercle Bacillus had any part in bringing about the gland condition it is impossible to say in the absence of other confirmatory symptoms.

Nothing of interest was found in the matter of *Tonsils* and Adenoids. As has, I believe, been the experience of other School Medical Officers, I have found cases here and there that have apparently undergone spontaneous cure without any special treatment, and one result of directing parents' attention to this defect has been the treatment of a number of children on the parents' initiative, before the age at which Medical Inspection commences.

The supply of *Blind*, *Deaf*, *Mentally Defective*, and *Epileptic* Children does not fail, and the problem of keeping the Mentally Defective at school for the extended period remains a difficult one. The parents are anxious to get these children to work, although the wage may be small, and even if a Magistrates' Order is obtained it is imposible to ensure a regular attendance in some instances.

Minor ailments such as Chronic Otorrhrea and Chronic Rhinitis, have been less prevalent amongst the children examined during 1919. When these ailments are treated at the County Council Centre I think good work may be accomplished by the use of mixed infection vaccines, which I have found of undoubted benefit in septic complications amongst the children at the Watford Joint Isolation Hospital.

Vaccination in Watford hardly exists, and although I have no definite figures prepared on this subject I think I am right in saying that at the present time not more than 20 to 30 per cent. of the young children are vaccinated.

With regard to *Physical Training*, I should suggest that this question be considered from the curative side, and that any measure carried out in this direction be linked up with the provision made for *open air instruction*.

The importance of the latter subject I have insisted upon in previous reports time and time again, as I have felt confident that, whether my recommendations received any consideration or not, from a health point of view this is perhaps the most important question of any connected with the education of children. The necessity of fresh air for human beings and the *urgent* necessity of it for growing children is only partially realised and half-heartedly insisted upon even by the Medical Profession.

We are so used to the confined and stuffy atmosphere of rooms that we fail to notice the deteriorating effect that results to the indoor worker when compared with the health of those spending the greater part of their time out of doors. School children are assembled for teaching in rooms that provide a floor space of about 12 sq. feet per head, although the poultry keeper recognises that at least half that floor space is required for a chicken if it is to be kept in health. The commencement of defects found on Medical Inspection is often encouraged by school surroundings, schools thus proving a helpful rather than a counteracting influence to any unhealthy conditions existing in the Child's home.

Undoubtedly the supply of well aerated blood to the brain will assist its normal development at a time when a teacher is making special demand on the activity of the brain cells, and the good results of open air schools in training the mentally defective demonstrate: how this beneficial influence even extends to those cases where development capacity is at its lowest.

Many obscure forms of chronic infection that tend to reduce the general development and deteriorate the general physique might be cured by open air treatment alone, and as a part of the child's education the acquirement of the open air habit would be of infinite greater importance in after life than much of the instruction laid down in the code.

The cost of open air schools is only a small portion of that for the more elaborate structures generally erected, and as a comencement, I strongly recommend that in Watford a new school on open air lines be provided for the mentally deficient, and that provision be made for open air instruction during the Summer Months in connection with one other school as a preliminary step to further action in this direction in the future.

The work of the teachers and school nurses deserves my warmest praise and the interest taken in their children at the medical Inspections by many mothers is a most satisfactory feature on those occasions.

Maternity and Child Welfare work must in time have a

very great influence on the physical condition of the children when they reach school age.

As the aim of this branch of Public Health Administration is to raise the standard of health of the child from birth onwards, if this ideal is attained, the material supplied to the schools must be of better quality and freer from defects than in the past

When the scheme is fully developed, early manifestations of defects will receive attention and this will necessarily reduce the number of the latter amongst those children Medically Examined at school.

Some arrangement might be possible for the School Treatment Centre to be used by the Public Health Department for the treatment of children up to five years of age and in this way greater continuity of the work would be assured.

It was not found necessary to close the schools except for Measles in the early months of the year. This epidemic was so widespread that I closed nearly all the Infants Schools, but whether this procedure had any effect on stopping the spread of the disease I should not like to say.

FOOD.

MILK SUPPLY.

The great difficulties with regard to the milk supply during the year 1919 have been the impossibility of obtaining the milk from outside Watford sufficiently soon after it has come from the cow, and in the case of all milk, the trouble of arranging for two deliveries a day.

During a large part of the year the milk was delivered by the producers only once a day and delivered to the customer only once also.

It may be said that while the former condition existed the latter was of little importance but it involved the longer storage of milk in the houses under circumstances, in certain instances, more unfavourable than those existing at the retailer's premises.

In a place like Watford, where about two thirds of the milk comes from outside the District, certain powers should be in the hands of the Public Health Authority, to ensure cleanliness at the source, the quick transference to the Rail and a proper railway service for its early delivery to the retailer, and the control of all the necessary precautions during transit should be vested in the Health Authority of the District receiving the mllk.

With regard to the smaller portion of the supply which is produced in Watford, this is supervised by the Public Health Officials, visits to enforce the provisions of the Dairies and Milkshop's Orders being paid both by myself and the Food Inspector.

The condition of these Cowsheds is fairly satisfactory, but it would be a great help in the work of supervision if each Dairyman had to have a licence which could be suspended at any time by the Public Health Authority on the recommendation of the Medical Officer of Health.

This power would add weight to the directions given with regard to cleanliness, etc., and I feel sure that it would not be abused by the Chief Public Health Official. Samples of milk are taken and sent to Messrs. Thresh and Beale, for examination for Tuberculous contamination. The result has been satisfactory on the whole, the last samples, which numbered 19, all being free from Tubercle Bacilli.

Where the organisms have been discovered the producer is communicated with, and if outside our boundaries the Medical Officer of Health of the producing District.

When Watford is the District concerned the Cow is sought for with the help of the Veterinary Surgeon if necessary, and efforts are made to get it slaughtered. This is not always possible, the owner prefering to sell it into another District—a proceeding over which we have no control. If the new domicle can be ascertained, the Medical Officer of Health is informed of the circumstances of the case.

Had the order of the Board of Agriculture issued just before the War enabling the Authority to have any suspected animal slaughtered not been rescinded soon after the outbreak of hostilities, the above difficulty would not have existed.

A matter like this, however, should be for the regulation of the Ministry of Health, and it is to be hoped that such necessary powers will not be left for the Board of Agriculture to confer or not on Local Authorities as they think fit.

It is to be hoped that better facilities will be given to Local Public Health Authorities to regulate the milk supply in their Districts in order to ensure its greater purity.

The Act passed during the War and to come into force after its termination, does not appear to go far enough, and each District should have powers given it to arrange a Scheme for its own needs on broad lines laid down by the Ministry of Health.

OTHER FOODS.

The inspection of food is undertaken by an Inspector for this special purpose, the Chief Inspector and our third one each possessing the Meat Inspection Certificate so that they can take on this work as well, if necessary.

Since the establishment of Government Slaughterhouses, the major part of the Inspector's time has been taken up at the Central Depot, but he has been able to exercise a more efficient control over the meat supply of Watford under these circumstances, than when he had to go from one slaughterhouse to another without any definite information as to when slaughtering was taking place at any particular premises.

The absence of any restrictions on the time of slaughtering in pre-war days reduced Meat Inspection, if not to a farce, certainly to a precedure comparatively easy to avoid. It was only necessary when an animal or animals apeared likely to yield diseased or inferior quality meat on slaughtering, to arrange for this to take place either before the Inspector came on duty in the morning or after the Official hours in the evening.

If all the offal were removed, even if the carcase was not taken away (although this could be easily arranged for, and was often done), it was very difficult for the Inspector to find sufficient evidence in the flesh alone even of animals undoubtedly diseased.

The Council at my recommendation some twelve years ago appointed a Meat Inspector, and undoubtedly this was attended by good results, and the majority of the Public will eat its Beefsteak or Mutton chop under the impression that it must be right because there is a Meat Inspector, and that if he allows any diseased meat to be sold the sooner he and the whole Public Health Department are changed, the better.

The impossiblity under pre-war conditions of a com-

plete Meat Inspection taking place was of course realised by those Authorities who troubled themselves about it, and perhaps most keenly by those Departments that did the most efficient inspection within their power.

Knowing this, the Watford Urban Council asked years before the War for powers to close the existing slaughterhouses, and to erect a Public one.

Nothing, however, came of this, as no notice was taken of our desires by the Local Government Board.

We are now again asking the Ministry of Health for such powers, and this newly created Ministry will rise or fall in the estimation of the Public, who have expected so much in the matter of Health Reform from its creation, on its willingness and ability to give Local Authorities what they ask for—always presuming that such request is reasonable.

There can be no doubt about the need for a Public Abattoir; we recognised the necessity before the War and from the experience gained of Central Slaughtering during the War we recognise even more clearly than before that such a place is absolutely essential if we want to ensure a Meat Supply free from disease.

I append my Report on a Public Abattoir made to the Council last November.

From the work done by the Food Inspector during 1919, it will be seen that the amount of condemned meat was larger than ever before.

This is of course largely due to better facilities for inspection, but not altogether. Probably two other causes have contributed to this result.

During the War and after, the nature of the food for cattle deteriorated considerably, and generally speaking, insufficiency and inferior quality pre-disposed to poorness and disease amongst the animals so fed.

Also the owners of the poorest animals and those where even disease might reasonably be suspected were anxious to clear out their stock of undesirables, as should they be lucky enough to get them graded, the full market value would still be paid by the Government if condemned by the Public Health Department to whom the former look to carry out the necessary inspection.

I do not think I am overstating the fact when I say that the Government must during 1919 have paid at least $\pounds 5,000$ to owners of condemned animals in the Watford area alone.

REPORT ON PUBLIC ABATTOIR AND WASTE ELIMINATOR PLANT,

In November, 1919, I reported to my Council as follows: —

"At the Government Slaughterhouse a great deal of meat is condemned, and at the present time nothing is done with it except to send it down to the Sewage Farm and Destructor. A small portion is eaten by the Council's pigs after being properly cooked at the former place, but the larger part is destroyed, and its value, which is considerable if treated properly, is a dead loss to the community. In addition to this in a large slaughterhouse like ours, a lot of refuse matter such as blood, contents of paunches and intestines, and other offal which are only a nuisance under present conditions, would increase immensely the quantity of treatable material for a Waste Eliminator Plant.

"The products from the latter consist of a Fertilizer, Bone Meal, and Edible Fat, the market value of which are ± 15 , ± 20 , and ± 80 a ton respectively.

"Should such a plant be part of the equipment of a Public Abattoir the profit derived from it would go a long way to make the latter a self-paying proposition from the first.

"The experience gained during the existence of the present system of Central Controlled Slaughtering has shown most conclusively that under the old system tons and tons of diseased meat must have got in to the market without the Inspector ever having a chance of examining it, and we may be sure that if meat is de-controlled a very large quantity will again be consumed by the Public, whose apathy on the subject is amazing. Public opinion is, however, at last waking up to the importance of Central Slaughtering and I therefore strongly recommend the Council to pass a resolution that the proper steps be taken at once to establish a Public Abattoir in Watford, and that a Sub-committee be appointed to go into the details of the scheme and advise the Council as to the question of incorporating the necessary plant for dealing economically with diseased meat and refuse matter coming from the slaughterhouse.

"Some compensation might have to be paid but this would be small at the present time, as practically none of the butchers are using their slaughterhouses (except for pig slaughtering), and any claim from Mr. Fisher, who kills perhaps three quarters of the meat in Watford, could be met by buying his slaughterhouse as the first instalment of a more extensive Public Abattoir."

The Council appointed a Sub-committee as suggested, and a visit was paid to the Stratford Waste Eliminator Plant.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES.

During the year under consideration the number of notifications of Infectious Diseases was very high.

Including Pulmonary and other forms of Tuberculosis, together with two diseases made notifiable during 1919, the total number was 1,628; Diphtheria, 64; Erysipelas, 11; Scarlet Fever, 164; Enteric Fever,3; Cerebro Spinal Meningitis, 1; Puerperal Fever, 6; Encephalitis Lethargica, 1; Ophthalmia Neonatorum, 6; Pneumonia, 25; Malaria, 21; Measles, 1,228; Pulmonary Tuberculosis, 87; Other forms of Tuberculosis, 12.

The number of those diseases that constitute the main feature in the past was not a very high one, although in the second half of the year we had quite a burst of Scarlet Fever that filled up the Isolation Hospital to such an extent that for a short time accommodation there was insufficient.

The cases of Measles were very numerous, there being 1,228 notifications of this disease alone, these being the main cause of the heavy total.

With regard to Pneumonia twenty-five cases were notified; these were visited by the Health Visitors, and some little help in nursing was given by the Nurse employed for visiting Measles in eight cases where the Nursing was inefficient.

The experience is too slight to express any opinion on the benefit of notification, but as only two cases died out of the eight receiving nursing attention, I think we may form a favourable opinion of the benefit likely to result from the 7th January Regulations.

Twenty-one cases of Malaria were notified, but all these were simply a re-currence of the disease from previous attacks.

No cases of Dysentery or Trench Fever were notified. One case of Encephalitis Lethargica was notified, and had a fatal termination.

Diphtheria Anti-toxin has been supplied to Medical Men for years, but it is not very largely used by them as the majority of cases go into the Isolation Hospital for Treatment.

Return cases of Scarlet Fever are so few that they need no consideration.

SCARLET FEVER.

Scarlet Fever assumed unusual activity during the latter half of the year in Watford, as was the case in many of the London Suburbs. The total notifications amounted to 164, and out of these 120 occurred during the last quarter of the year.

The first quarter showed only 15 cases; the second 7; the third, 22; and the fourth gave us the big jump already mentioned.

The two Wards affected were: Callowland and Kings, and the rapid spread in the first Ward was assisted by the mild type of the disease and the existence at the same time of a large number of cases of Measles. Some cases were only spotted either when desquamating at School or by the family doctor, while several cases of Measles were diagnosed as Scarlet Fever and caused great trouble at the Isolation Hospital by giving rise to the former disease before isolation of the wrongly diagnosed cases could be effected.

King's Ward joined somewhat later, furnishing during the last three months of the year 59 cases compared with 71 coming from Callowland.

Altogether, the type of the disease was not at all virulent, but the infection appeared to be of a sufficiently mixed character to develop into a more serious septic form under bad hygenic surroundings.

During November it was difficult to cope with the cases in the Hospital, and some had to remain at home for a time until vacancies occurred in the latter. The origin of the little outbreak was probably due to the same conditions that operated in other surrounding districts of London.

In my opinion, epidemics of the disease equally with the more scattered cases that are always with us, originate in the first instance from Carrier Cases that it is impossible to detect, and considering the great variety in severity and definiteness of typical symptoms more than one variety of streptococcus is capable of giving rise to a Scarletina like rash, whose appearance will lead to the diagnosis of the disease.

The infectious quality of these different types appear to vary also, as cases where the intense rash of a genuine septic rash is most marked and produces very extensive desquamation are often quite harmless, and certainly many of the cases of a mild type received into the Hospital would have been equally innocent of spreading Scarlet Fever, if left at home. Still, the border line is so difficult to draw that we cannot always successfully separate the sheep from the goats with absolute certainty, but I am inclined to recommend some reliance on the duration of the rash as a guide to diagnosis, and the exercise of some caution in notifying cases where the rash is of a fleeting character.

DIPHTHERIA.

Six more cases of Diphtheria were notified during 1919 than in the previous year, but 64 is a small number for the twelve months considering that some were doubtful, some really not clinical cases, but only carriers, and others of a very mild nature.

Callowland showed the greatest prevalence owing to 15 cases in the third quarter, preceded by 8 in the second quarter of the year. The cases attended mostly at Alexandra and Leavesden Road Schools, and when investigations had been made and one or two possible **ca**rriers found and treated, the cases dropped to only 2 **noti**fications in the last three months of the year.

INFLUENZA.

The spring of the year 1919 saw a small recurrence of this complaint but its severity was not sufficient to warrant again opening the Ward at the Isolation Hospital. The death rate from this disease was 0.8 in 1919.

I must again emphasise the importance of the Ministry of Health establishing a Nursing Reserve available for serious epidemics in times of peace similar to the organisation that was of such benefit at the early period of the War.

It is essential to ensure the available nurses in the time of a National outbreak of Disease, like the Influenza Epidemic of 1918, being used to the best advantage.

Important as it may be for individual persons who can pay to have one or more nurses especially to look after his or her case, it is a far more vital matter that Temporary Hospitals established for the treatment of the most serious cases, whose only chance of recovery lies in good nursing and Hospital environment, should not stand still for want of a suitable staff.

In many localities the accommodation can be supplied at comparatively short notice, but Nurses are impossible to obtain. Nothing that any nurse is engaged upon can be of so much importance as Hospital work at such a time as we are discussing, and it should be possible for the Ministry of Health to supply every Temporary Hospital opened with an efficient staff as soon as required.

MEASLES.

This disease occasioned a large amount of sickness amongst the children in Watford, 1,228 cases being notified.

All the houses were visited by the Health Visitors, and as mentioned elsewhere, assistance in nursing was secured for those urgently wanting help by sending a trained nurse to those cases reported by the Health Visitor as requiring it.

The type was not exceptionally virulent, as only 13 deaths occurred in all, which gives a case mortality of only just over one per cent.

The Infant Departments of seven schools were closed for varying periods, but with very little results as far as the progress of the epidemic was concerned.

ENTERIC FEVER.

Three cases of this disease were notified and all went into the Isolation Hospital.

One case was a relapse of Para-Typhoid after coming home convalescent from East Africa; the other two cases occurred after being away for a holiday, so that probably none of the three contracted this disease in Watford. They all made excellent recoveries.

PREVALENCE AND CONTROL OF TUBERCULOSIS.

Thirteen fewer notifications were received of the above disease in 1919 than was the case in 1918.

Of these, 87 were cases of Pulmonary Disease, whilst twelve had manifestations of Tuberculosis in some other form. Twenty-nine patients lived in King's Ward; eighteen in Queen's; nine in St. Andrew's; thirty-eight, the largest figure, in Callowland; and five in Oxhey.

The methods of notifications are somewhat instructive with regard to the real usefulness or otherwise of the work being done to stamp out the disease.

Of the 99 cases 52 were notified by Local Medical Practitioners, 20 by the Doctors at Sanatoriums or Hospitals, and 29 by the County Medical Officer of Health.

It will be seen from this that 49, or nearly half, never came to my knowledge till they had been in an Institution or treated at the Dispensary, and I presume these cases were also unknown to the Local Doctors or I should have been notified by them of the existence of the disease.

As a matter of fact, it matters very little whether they are notified to me or any other Doctor at all. To be of any service the Health Authority should be able to send the cases to a Sanatorium at the earliest moment the declares itself and when disease required supply the necessary allowance to wife and family SO as to entirely remove the disturbing financial drawat the same time, if the backs to recovery; State shoulders the burdens incident to the development of this disease, the relatives, at least, owe the State the right to examine and benevolently control all those who have run some risk of having contracted the disease by their association with the patient.

The Patient himself must also in return for the State's care remain as long as necessary under Sanatorium

Treatment and then be willing to resume employment that will be of a character both to discourage the return of the disease activity or to implant the disease germs on the favourable soil of other people with constitutional weakness in their resisting power to the micro-organisms.

In plain language, all those suffering from this infectious disease should understand that they must take certain precautions against its spread, and be under the control of the Local Health Authority, and their relatives should also realise that a periodical examination is necessary of suspicious contacts, and that here, the Local Health Authority must be the Controlling Body.

To call and give advice, but be able to do nothing to control the patient's habits and surroundings; to be instrumental in getting a patient admitted into a Sanatorium and be powerless to prevent his relapse within a few months after his discharge; to offer a shelter for a patient to sleep in and find no place in his baca "garden" to put it; warn wife and family against carelessness in running risk of contracting the complaint, but be unable to take steps to discover any early manifestations of the disease : —all these make up the total of the powers of the Medical Officer of Health—powers that are not only devoid of all chance of ultimate benefit, but occupy time and money without hope of return.

The Ministry of Health wants to tackle this matter boldly, not only from the somewhat narrow outlook of those unfortunately, suffering from the disease in a manifest form at the present moment, but with regard to those who, if the proper programme of action be not drawn up and carried out, will develop the disease in the next generation and ensure the succession of cases in the years to come, as has been the case in the years that are past.

Of the 99 cases, 42 went into Sanatorium, and 6 were treated in the Infirmary or other Hospitals.

Fifty-two deaths took place giving a death rate of 1.1 per 1,000 population.

MATERNITY AND CHILD WELFARE.

In my report for the year 1918 the hope was expressed that during 1919 a successful termination to the negotiations for "Little Nascot" as a Maternity and Child Welfare Centre would be seen. The Council were quite willing to make the purchase if they could gain possession, but there was great difficulty experienced in inducing the Military Authorities to give up possession.

It was considered, however, that the consultation work would take up too much of the accommodation, so that I recommended that an army hut should be purchased for this purpose and this could be placed in the grounds of "Little Nascot," or on another site if we were unsuccessful in securing that house.

On January 21st this recommendation was passed, and although repeated applications and various visits to the Surplus Disposal Board were paid with regard to one of the huts at Bushey Hall, it was not till May that we were informed that they were available and the purchase was then carried through.

With regard to "Little Nascot," the Local Government Board in February suggested that an independent valuer be appointed to determine whether the Council were paying above the market value, and although some correspondence took place, and this was not done immediately, the final result was that the firm of Valuers appointed gave a higher figure than that asked for by Mr. Flint.

Besides asking for an independent valuer the Local Government Board sent down a Medical Inspector to report on the suitability of the house for the purposes proposed.

Dr. Brodie saw all over the property, and, although it was still suffering in appearance from its occupation by the Military, after making suggestions and going thoroughly into the methods of adaptation I had recommended, she expressed herself as exceedingly satisfied with the building and its surroundings for the Maternity and Children's Work contemplated.

All her suggestions were reported to the Council in March and agreed to, and in April the Local Government Board wrote "sanctioning the proposals generally subject to the various minor alterations suggested by their Inspector."

The Board asked for information on other points, which was supplied them as soon as possible.

In May, the main difficulty of proceeding was removed by the vacation of the premises on the 19th of that month by the Military. Even then, however, the purchase of the property was not completed till July 29th, and the erection of the Hut in the garden, which was commenced in June, was hung up till August owing to the owner refusing to let the Council enter the premises till the purchase was completed.

After that, the Hut was soon completed, and, although the lining with asbestos sheeting required by the Local Government Board caused a fresh delay, it was eventually opened in the early part of December.

A tea was given to the Mothers, and the attendance was so good that it was impossible to accommodate all those that came.

From the date of the completion of purchase of the house and grounds known as "Little Nascot," alterations, repairs, and adaptations were put in hand.

From this point the progress of the Scheme became somewhat incoherent, the arranging and deciding the character of the details being largely assumed by one or two members of the Maternity and Child Welfare Subcommittee.

This latter body was really the Voluntary Ladies' Committee (with additions), that had done excellent work in arranging various Maternity and Child Welfare functions, such as Baby Week, etc., before the responsibility of the Mothers and Children Welfare Work definitely passed into the hands of the Urban District Council.

The Statutory Committee provided for in the Acts was the Public Health Committee, but this body delegated most of its power to the old voluntary sub-committee, and as was only natural, this arrangement led to an interlacing of Official and Voluntary control which did not make for expedition or efficiency.

The original plan of establishing such a centre was suggested by the Medical Officer of Health as a voluntary scheme to be carried through as a peace memorial, but, although it was supported by members of the old voluntary committee they failed to carry it through, hesitating to run in opposition to a later scheme of a Peace Memorial Hospital for Watford.

The Council, however, agreed to supply the necessary building when they became responsible for the work, and this placed initiation for the organisation on the shoulders of the Medical Officer of Health and other Officials of the Council where their special Departments were concerned. In July the Sub-committee was supplied with a list of what the Medical Officer of Health considered should be the staff for the Centre, and decided that a matron should be appointed to assist and advise the Secretary of the Subcommittee for some months before the completion of the equipment and opening of the Centre.

In October the Sub-committee recommended the appointment of a part-time lady-doctor to assist the Medical Officer of Health in the work of the Centre. Miss Beedie was appointed to the first position and Dr. Pirret to the latter in December.

It was decided that Miss Beedie's services should commence on December 15th and "it was hoped that three rooms would be available for her at 'Little Nascot.'"

Dr. Pirret was to commence her attendance at the consultations from the 1st of January, 1920.

It will be seen that, notwithstanding the difficulties of various kinds, the Maternity and Child Welfare scheme was on the point of being realised by the end of 1919.

In order to be assured that the arrangements for all the different branches of the work at the Centre as finally settled, would be in accordance with the views of the Ministry of Health, I wrote asking that a Medical Inspector should come to Watford and criticise.

On November 18th Dr. Lambert came, inspected the plans and visited the Centre, going into all the details of the scheme. She expressed herself as greatly pleased with "Little Nascot" and the Hut and considered that both were in every way suited for the purposes they were intended to serve.

She made one or two suggestions, all of which have been adopted, with the exception of the one that the division in the Day Children's room should be a movable glass one. This was found by the Surveyor to be very expensive and it was thought that under the circumstances the Ministry would not insist on this, and a fixed division has been erected.

During the greater part of the year the Consultations for Mothers and Children, and Weighings, took place at the Girls' Patriotic Club, which, although not very convenient, was the best place we could obtain.

We finished the year, however, as has been already mentioned, in the pewly erected wooden building which as fitted up makes an admirable consultation centre. There is every evidence that during the current year the attendance of Mothers and Children and Expectant Mothers will be larger than ever before.

The work of the Health Visitors has proceeded on the usual lines during 1919, and all cases of Expectant and Nursing Mothers, Babies and Young Children requiring milk, have been reported to me, and where the circumstances have in my opinion warranted the gratuitous supply, this has been given. In other cases, where it seemed that milk might be supplied at half-cost, I have arranged to let those needing it have half the quantity required without charge on condition that they purchase the other half themselves. This arrangement appears to work satisfactorily.

Milk has been granted free of charge on the recommendation of the Medical Officer of Health for some time before the issue of the 1918 Order.

Years ago, I considered the supply of milk to babies and Mothers such a pressing need, that I recommended the Council to take up the matter, but as they were unwilling to assume the responsibility, I induced some ladies to form a small Committee to raise money by voluntary subscriptions.

The Fund thus raised was used to supply milk free of charge to suitable cases that could not obtain it themselves, and the distribution was left in the hands of the Medical Officer of Health acting principally on the information supplied him by the Health Visitors.

At the Day Nursery and Resident Home, the number of Day Children using the Nursery has decreased during the year, and this is what we might expect after the cessation of the War Work and the stoppage of the unemployment pay.

The attendances were also interfered with by the closing of the Nursery on several occasions due to the prevalence of Measles, Whooping Cough, and Chicken Pox in Watford.

The daily average number of Children coming to the Nursery amounted to ten during the year.

The number of resident children has generally been equal to the accommodation provided, and it was found necessary to strictly adhere to the rule of taking only Children that were connected with Watford.

It has been found very difficult to maintain an effi-

cient Staff, but when the whole of the activities are transferred to the new buildings, with one good Matron over all, this should improve.

I append the Report of the work of the Health Visitors, in which are some details with regard to Home Helps.

It will be seen that an extensive outbreak of Measles necessitated a large number of visits on the part of the Health Visitors, who were assisted by a trained Nurse living in Watford, whose part-time services were secured to visit and give help in any case of Bronchitis or Pneumonia.

STATISTICAL DETAILS OF THE WORK CARRIED OUT UNDER THE NOTIFICATION OF BIRTHS ACT AND AT THE CONSULTATIONS CENTRE.

Number of births notified by Medical Practitioners 171	
,, ,, ,, Midwives 399	
Poronts 15	
received from the Pagistran and	
not previously notified to	
Medical Officer of Health 59	
Eighteen of the above were still-born, and twenty-	
five were illegitimate. Of the latter twenty-one remained	
in Watford and four removed elsewhere. Of the 21 three	
died during the year.	
Number of first visits paid to births 567	
,, re-visits during first year 3,098	
,, visits to children between one and five	
years old 627	
,, Mothers on the Register attending the	
Consultations Centre during 1919	
for advice and weighing of children 350	
Nothers who had not attended the Control	
before 1919 226	
Infont weighings 1405	
,, Expectant mothers on Books at the end	
of 1919 101	
,, Expectant mothers visited for the first	
time during 1919 101	
,, Visits paid 268	
" Expectant mothers helped with Milk and	
Foods 37	

Number of expectant mothers who attended and	-
made garments	23
Total number of mothers attending the School for	
	42
Total attendance at the School for Mothers	517
Number of other cases helped with Milk	49
Average weekly attendances of Children at Consulta-	
tions and weighings	28.9
Average weekly attendances of expectant mothers	4.9

HOME HELPS.

This branch of the Maternity and Child Welfare work has not been as flourishing as it might have been had we been able to get a satisfactory supply of women to act in this capacity.

During the year we have had only one permanent woman and she gave up her work in October.

Five women have done occasional work, but this is not altogether satisfactory, as unless they are definitely in the employ of the Council they are not to be relied upon.

In all, 21 cases were supplied with a Home Help, but many cases were refused, to their great disappointment.

The work is hard and rather trying, and women as a rule do not care to take it on, although the Council have raised the rate of payment several times.

The number of visits paid by the Health Visitors, re Home Helps, amounted to 104 during the year.

TUBERCULOSIS.

Number of visits and re-visits paid to cases of Tuberculosis 232

MEASLES.

Visits paid in connection with the above disease 990 Number of cases of Bronchitis and Pneumonia, complicating Measles, nursed by trained

28

Nurse

The provision of Midwives and of a Maternity Hospital is undertaken by the Herts County Nursing Association and co-ordinated with the general work of the District Council so as to cover all the grounds of Maternity and Child Welfare Activity in Watford. The number of cases of Puerperal Fever notified was rather high for Watford, amounting to six, and of these, three recovered and three died.

The Registrar General, however, gives five deaths from this disease, and I conclude he had included two cases of miscarriage who died from Septicæmia, but which were **not** notified.

There appears to be either some uncertainty or reluctance on the part of Medical Men to notify these cases, and in one instance during 1919 I only received the notification after the death of the patient.

Although the cases notified are not large, there appears to be a tendency for an increase rather than the reverse as I see that during the ten years 1900 to 1909 only 15 cases were notified, but during the period 1910 to 1919 I received 33 notifications; the deaths for these two periods being 7 in the first ten years and 14 for the latter decade.

It is difficult to find any reason for this increase as there appears no series of cases that can be traced to either infection by a Medical Man or Nurse, and, although a large number of cases are looked after by Nurses from the County Nursing Association, I am given to understand that every care is taken with regard to asceptic precautions in all dealings with cases of confinement.

As there appears no connection between one and another of these cases one can only suppose that in each case the infecting organism has been introduced in a different way, sometimes from without and sometimes apparently by a process of self-infection.

It appears, therefore, that next to preventing the entrance of organisms from outside at the time of the confiment, is the ensuring the mother from being herself the source of infection, and we may look upon pre-natal consultations as a definite step in this direction.

With regard to Ophthalmia Neonatorum six cases were notified, three out of these being illegitimate babies. The latter were removed to the Union Infirmary, where one died and the other two made perfect recoveries. The remaining three babies also recovered completely without any damage to eyesight.

Measles has already been dealt with, and there is not anything of importance to report on Whooping Cough, as it seems almost impossible to do very much to stop the spread of the complaint. Epidemic Diarrhœa was not at all prevalent during 1919, and no cases of Poliomyelitis were notified.

SANITARY ADMINISTRATION.

The Staff of the Public Health Department of Watford consists of the following : —

I.

1. The Medical Officer of Health (whole time).

- 2. Chief Sanitary Inspector.
- 3. Meat and Food Inspector

4. Assistant Sanitary Inspector.

5. Chief Health Visitor.

6. Assistant Health Visitor.

7. Clerk.

An additional man is engaged on drain testing, disinfecting, cleansing of Courts and Alleys, etc.

II.

The Hospital for Infectious Diseases is situated in the Watford District Area and serves for not only Watford but for the Districts embraced by the Watford Union.

It is managed by a Joint Hospital Board, contains 66 beds, and has an adequate staff under a Medical Superintendent and Matron.

The old Infectious Disease Hospital is reserved for cases of Smallpox, and when cases occur it is opened under the management of the Medical Officer of Health for West Herts—Dr. Gruggen. It contains about 12 beds and the accommodation is quite satisfactory.

The Report of the work at the Joint Isolation Hospital appears under that heading at the end.

III.

The only Local Act for the District is the Watford Act of 1909.

The adoptive Acts in force in the Watford Urban District are the following: —

> Infectious Diseases Notification Act 1889. Infectious Diseases Prevention Act... 1890. Public Health Amendment Act ... 1890. Public Health Amendment Act ... 1907. Notification of Births' Act. Good Rule and Government (adopted by the County Council for the County).

At the Public Health Laboratory the work mainly consisted of examining suspected Diphtheria swabs and specimens of sputum for Tubercle Bacilli.

Two hundred and seven swabs were examined for evidence of Diphtheria, and 58 specimens of sputum were tested, only 12 giving positive evidence of Tubercle Bacilli.

The examination of milk samples and of the water supply are done at the Lister Institute and by Drs. Thresh and Beale, Counties Public Health Laboratories, respectively.

HOUSING.

I.

GENERAL HOUSING CONDITIONS IN THE DISTRICT.

(1). The total number of houses in Watford in 1919 was 10,089, and out of these 7.741 were of the working class type.

During the year 1919 practically no new houses were built for the industrial population, and during the three years previous—1915 to 1918—only 193 were erected and these were principally the surplus of unfinished houses that were in course of erection, or for which plans had been sent in previous to the outbreak of War.

(2). The population of the town as given by the Registrar General for Birth Rate purposes is 48,113, and, notwithstanding the acute housing difficulties in Watford, the number of inhabitants is still increasing. The latter part of the year saw the starting of extensive motor works near Watford West Station, a large garage for the Metropolitan Motor Bus Co., and other enterprises where very extensive additions were commenced and are still being made to the Watford Manufacturing Company's factory, and the Watford Speedometer Works, etc.

In addition, the Council had enquiries from other firms as to whether there is housing accommodation should they build factories at Watford—an illustrative case being one from an Engineering firm, in September, 1919, asking "whether there would be likely to be housing accommodation in Watford within the next two or three years for a couple of thousand workmen."

(a) The extent of shortage of houses is further shown

by the register opened by the Council for those requiring fresh accommodation.

The number of applicants on the register at the end of 1919 amounted to 1,160, and a large number of these are newly married people who are now lodging in houses only suited to the requirements of the original tenants.

During the current year the shortage will be further accentuated by the Building Schemes of the Council, where the necessary work to alleviate the housing deficiency will probably for a short time add further to it by the introduction of a large number of fresh workmen engaged on erecting the new dwellings.

It is calculated that the shortage of houses at the present time is over 2,000, but with a place like Watford it is impossible to say how soon that number may be increased, as its close association with London, especially through the agency of the Electric Railway, affords possibilities for the future establishment of new industries that are difficult to estimate.

(b) As early as June, 1918, the Watford Council considered the advisability of embarking on a Housing Scheme and I made a report on the whole question at that time.

A small number of houses had been erected previously to the War in Willow Lane, and a second instalment of these were on the point of being built when the War commenced in 1914.

The result of the consideration of the matter in 1918 was to decide to complete the Willow Lane Scheme, but on much improved lines, and to purchase land in a more suitable position for a much more extensive and improved building scheme.

JANUARY.—In January, 1919, matters had progressed so far that a definite recommendation was made by the Public Health Committee that an estate, then known as Hossocks, but since purchase as Harebreaks, be acquired for the purpose of a site for new houses for the industrial population.

The necessity for houses and the demands of the people concerned for dwellings of a different quality than previously supplied them are seen by the fact that at the same meeting where it was decided to buy the estate, a deputation from the Watford Trades Council and Labour Housing Committee was received and made various recommendations as to the character of the houses and their surroundings.

Amongst these were prominent the necessity of an adequate number of four bedroom houses, a good garden, and a desire that the houses be built away from railways and factories.

FEBRUARY.—During February, a recommendation was made to the Council to purchase a second estate — the Wiggenhall Estate—and the contract for the purchase of Harebreaks was executed, and application made to the Local Government Board for sanction.

At the same time it was decided to select new plans of improved types of houses for Willow Lane and get the necessary sanction and assistance of the Local Government Board so that building might commence not later than June, 1919.

It will be thus seen that in February of last year the Council were embarked on three Housing Schemes which, when completed, would provide the following number of houses.

Willow Lane, No.	2
Harebreaks Estate	
Wiggenhall Estate	

40 houses. about 870 houses. about 375 houses.

Again the urgency of going ahead was shown by the receipt of letters from the National Federation of Discharged and Demobilised Soldiers and Sailors, and from the Urban District Council's Association.

MARCH.—During the next month (March) the sanction of the Local Government Board was given for the purchase of Harebreaks Estate, and the preparation of plans for the Willow Lane new type houses proceeded.

APRIL.—In April, the Harebreaks Estate became the property of the Council and the new lay-out of 40 instead of 80 houses on the Willow Lane Land, together with the plans of the houses, was submitted to Mr. Raymond Urwin, **architect** of the Local Government Board and approved (informally), subject to slight alterations which the Surveyor was quite ready to make.

Under these circumstances the Housing Sub-committee instructed the Surveyor to submit the amended plans as quickly as possible, to obtain additional office assistance if required, and to enter preliminary requisitions for materials required.

Thus, in April it appeared hopeful for the Willow Lane Scheme to be completed during the year. This provided for a panel of architects for a scheme of the size of Harebreaks, and the Surveyor was directed to commence negotiations with certain architects in accordance with the regulations in the manual already mentioned.

It was also reported that Housing Commissioners were being appointed for the different areas of the Country, and that Watford would be under the one for the Metropolitan Area.

In order to push on, the Surveyor reported that the survey and contouring of the Harebreaks site was already carried out for preparing the lay-out plan; and that he proposed the laying-out, the construction of the roads and sewers, the obtaining of tenders, etc., for same, should be carried out in the Council Offices with the Council's Staff.

MAX.—In May the question of architects as detailed in the Manual was settled; Mr. Vincent Harris was appointed to consider and advise on the laying out of Harebreaks in consultation with the Surveyor and five architects appointed to prepare the plans of the Houses in strict conformity with directions in the Housing Manual.

As the result of a letter from the Local Government Board received this month urging Councils to press forward, it was resolved that "The Housing Sub-committee be authorised to do any act or thing which they may consider necessary in connection with the Council's Housing Schemes, and which it is in the power of the Council to delegate, and which in ordinary circumstances would only be done by the full body of the Council."

That no time had been lost by the Council is proved by the Surveyor's Report that the preliminary sketch for the lay-out of Harebreaks by the architect, Mr. Vincent Harris, was well in hand and would be before the Local Government Board in a few days. He also reported that the Willow Lane amended plans had been submitted to the Local Government Board and were now being finished for deposit for the third time with the Local Government Board.

JUNE.—In June the Wiggenhall negotiations had progressed far enough for the Council to resolve to apply for a loan to purchase.

The work of this month consisted in finally settling

arrangements with architects on the basis laid down in the Manual and fixing details of lay-out and plans of houses required, so that architects could get on with the plans without delay.

On the 19th of June the allocation of scheme between the architects was settled, the percentage of different sized houses having been determined upon at the Public Health Meeting on the 10th :—

50 per cent. Two living and three bedrooms.

40 per cent. Two living and four bedrooms.

10 per cent. Larger houses and shops. Sites for Public Buildings.

The question of materials was gone into and the provision of sidings and supply of bricks were considered with a view to preventing any delay.

On the same date it was reported that the Willow Lane plans were still with the Local Government Board, so all hopes of commencing in June were gone.

JULY.—July was principally occupied in discussing with the Ministry of Health what the Council had settled as matters of urgency in the previous month and even earlier.

At the Housing Sub-committee on July 3rd Mr. Vincent Harris wrote asking directions on various points, but principally on the matter of proportion of three and four bedroom houses, and on this latter point the Clerk reported that he had written to the Ministry without reply.

With regard to Willow Lane the Clerk was directed to communicate with the Ministry of Health and ask whether they were in a position to approve the plans submitted to them some weeks ago.

• At the next Housing Sub-committee Meeting, July 10th, both these last matters came up.

With regard to type of houses in Harebreaks Estate the large ones were knocked out altogether, and Mr. Raymond Urwin wrote saying that the result of an interview he had with the Deputy Director General was that he suggested only 10 per cent. four bedroom houses in what he called the first batch of houses.

This was not considered satisfactory by the Council but no better arrangement has yet been obtained.

A letter dated July 4th in answer to the one sent by the Council with reference to Willow Lane plans was received.

This at last gave approval of site, lay-out, and house

plans, subject to seven reservations, all of which were simple matters except the last and that was that the specifications (which were necessary for obtaining tenders) were still under consideration. Still, this gave the Council power to advertise for tenders for sewer and road work.

A letter dated July 11th from Dr. Addison, expressing appreciation of the work of the Council in connection with Willow Lane Scheme, was received; but the Clerk was directed to write that the work was being hung up by the Ministry itself owing to non-issue of the forms of Building Contracts, Conditions of Tendering, etc., and that when these were issued it would be possible to go ahead.

On the 14th July the Council got sanction to borrow the sum of $\pounds 1,409$ and $\pounds 843$ for Street and Sewerage Works, "This sanction being given on the understanding that the works are put in hand at once !!!" The Ministry deferred consideration of the loan for the houses.

The Surveyor reported that he had interviewed the Ministry with regard to the delayed approval of the specifications for Willow Lane and that they promised to send it to-morrow. On the strength of this the Surveyor was instructed to invite tenders as soon as ready.

JULY. HOUSING SUB-COMMITTEE.—The month's work finished up on the 28th inst. with the receipt of prints of Circular D76—Streets and Sewers—from the Ministry of Health, setting out procedure to be adopted when the Ministry have approved of lay-out plans. The Clerk also submitted General Housing Memorandum, No. 1,080, modifying the procedure in the submission of Housing Schemes and at the same time he reported that the Council were still awaiting from the Ministry their Forms of Building Contract and conditions of tendering, etc., which were necessary for going on with Willow Lane and Harebreaks.

Various matters were considered by the Committee in connection with Harebreaks to enable progress to be made, but perhaps the most important of these was that the Surveyor reported an offer of facing bricks from Welwyn, and that the Ministry of Supply had stated that the Council could take these bricks provided the Ministry of Health's consent was obtained. It appeared, however, that this consent had not yet been obtained and the sub-committee considered it of sufficient importance to write directly to the Director General of Housing Department. August.—In August, although considered a slack month in Council work, to enable the Councillors and Officials to take their holidays, the Housing Sub-committee continued its work and in order that there should be no unnecessary delay the Sub-committee gave the Chairman authority to issue instructions whenever necessary for expediting the carrying out of any preliminary work required to be done.

Altogether, it appeared during the month that things were shaping satisfactorily for a speedy commencing at Willow Lane and Harebreaks and for the beginning of preliminary details in connection with Wiggenhall.

A letter dated the first of the month was received from the Ministry stating that they approved the specifications for the houses—still, however, subject to certain modifications suggested by them.

The Surveyor reported that the quantities for Street and Sewer work for this Scheme were ready, and that those for the Houses could now be got on with.

He was instructed to advertise for tenders for the former at once and for the houses as soon as quantities were ready.

Thus, in August, the Willow Lane Scheme had got as far as tendering for the first part of the work, and within measurable distance of advertising for tenders for the houses.

In April the plans were ready with the lay-out; very little alteration had been made in them or in the specifications since, yet it had consumed three or four months of valuable time to bring about a satisfactory agreement with the Ministry, and still the London Housing Board wanted certain modifications of the specifications.

The Wiggenhall Estate made further progress as a letter from the Ministry was received approving an area 42 acres for the erection of working class dwellings, but wanting further details with regard to an apportionment of the cost of the estate between housing and other purposes.

At the Meeting of the Sub-committee on the 11th August, an application was received for a number of the houses to be erected on the Wiggenhall Estate for the workmen to be employed in the motor works about to be erected near Watford West Station.

Although the Council could not pledge themselves to

grant this it points strongly to the need for extensive house building in Watford.

The Harebreaks Estate appeared in this month to have nearly overtaken Willow Lane, as Mr. Harris submitted the plans of the five architects which had already been placed before the Ministry of Health, and with which the Sub-committee expressed their satisfaction and approval.

Mr. Harris also reported that the Quantity Surveyor would now immediately start with the quantities, which it was hoped would be ready by September 20th, when Tenders might be invited.

SEPTEMBER.—At a Building Sub-committee Meeting of the fourth of this month the Surveyor reported that bricks were being delivered at the Council's siding, and the Committee selected a candidate for Chief Clerk of Works, thus showing that from their side they were determined to push on with building.

A letter was received from the Ministry of Health approving of lay-out of Harebreaks in its general features, but that it must be understood that some of the details might be altered when the detailed lay-out was submitted.

As Mr. Harris had reported on the 11th August that the plans of the five architects had been before the Ministry, and recommended preparations for Tenders, the Ministry's letter suggesting that some of the details might be altered was rather disappointing and calculated to produce developments making for delay.

It was, however, reported that an arrangement had been come to by the architects to have all the plans of the complete scheme ready to place in the hands of the Quantity Surveyor by October the 18th.

Arrangements were also made for printing Bills of Quantities, and the Surveyor reported that the work in connection with the Road and Sewer Plans was being pushed on in his office.

Willow Lane Scheme also showed progress, and it was reported that Tenders had been invited for Street and Sewer Work for September 10th, and the Surveyor was directed to accept a quotation for printing Bills of Quantities.

At the Housing Committee, September 11th, the Chief Clerk of Works was appointed, and it was reported that as a matter of urgency the Bills of Quantities had been sent to Messrs. Waterlow and Sons with regard to Harebreaks. At the next Housing Committee, September 16th, a Tender was accepted from Mr. C. Ball, of Letchworth, for Streets and Sewers for Willow Lane Scheme, subject to Contract.

With regard to Wiggenhall Estate it was reported that the apportionment had been made, and the Committee suggested an interview with the Ministry to finally settle this question.

At the Public Health Committee of September the 23rd, it was reported that plans had been received from five achitects for the first instalment of 47 houses, contracts for which had been advertised, that some quantities had been received and the others would be forwarded as soon as printed.

OCTOBER. — October saw the progress of Willow Lane Scheme, as on October 7th the Council accepted the Tender of the Garden City Housing Co. for the building of the forty houses arranged for. This was subject to the approval of the Ministry, the Housing Commissioners, and any other necessary Authorities.

At a Housing Committee Meeting on October 21st a letter from the Ministry with regard to local builders undertaking small groups of houses on pieces of unoccupied land was read, and the Committee settled to approach the builders and do everything they could to encourage this additional source of supply of houses.

One of the frequent communications urging the Council to get on with building was received from a local trade organisation.

The Council had received several memoranda with regard to procedure in Housing Schemes, but during this month there were five received, one after the other, and considering that most of these memoranda dealt with Housing Schemes only just being started, the regulations, instead of being a help in the quickening of building operations on the Harebreaks Estate, tended to raise new complications and clash with what we had already done.

One thing was, I think, definitely settled by the Ministry, that delivery of building materials was a matter for the Council, who should order from Director of Building Materials Supply.

The two General Housing Memoranda affecting the Council most at this moment were No. 10 re-Model Form of Contract, D88, which the Ministry recommended to be used by Local Authorities, and G.H.M. No. 8, dealing with rents of the houses to be erected by the Municipality.

With regard to the Model Form of Contract this was considered and reported upon by the Clerk, and the Committee decided, after going into the matter, that their own was preferable and should be adhered to. The reason for coming to this conclusion, it is better perhaps not to enlarge upon, but the Committee felt very strongly about the advisability of keeping to their own form, which had worked quite satisfactorily in the past.

The other G. H. M. was very important as bearing on the whole rent question of the future.

It states in the first instance, that the rents of the new houses should eventually be on an economic footing, and for that purpose it points out that the present restrictions on the rents will eventually have to be removed, and that there is "no reason why rents should permanently be placed in a different category from other commodities, such as food and clothing, which are necessary to life and health."

The Memorandum further insists that the objects of State aid are to bridge over a difficult transitional time until economic rents and prices have adjusted themselves to the new conditions.

The Ministry, on these facts, asks Local Authorities disposal, are able to state "that a normal level of prices will be reached by 1927, and that the level of prices will then be two-thirds of the present level," which means, I conclude, a permanent rise of normal values of about 80 per cent. on pre-war figures.

The Ministry, on these facts, ask Local Authorities to "use every endeavour to obtain as early as possible a rent which would give a fair economic return on twothirds of the actual cost of erecting houses, but they suggest that the rents should be fixed with regard to the prevailing rents of houses already built with such additions as would be equivalent to any general rise in rents due to removal of restrictions and better conditions, accommodation, amenity, etc., and larger gardens provided by the new houses."

This appears to mean that the rents of old and new houses shall start at somewhat the same figure, and both be gradually increased till they reach a figure amounting to about 80 per cent. of pre-war rents, the new houses being a little dearer all the time, owing to the fact that they will be a better type than most of those previously built for the industrial population.

Then the usual insistence on the Ministry's part that "urgency is the keynote of the housing problem," and, that in order to qualify for financial assistance, Schemes must be completed within certain periods.

PART I.—Outline Scheme and proposals within twelve months of passing of the Act, i.e. by July 31st, 1920.

PART II.—Insanity Areas and re-housing scheme, July 31st. 1921.

PART III.—Completion of New Schemes, July 31st, 1922.

This portion of the memorandum would probably have never appeared had all authorities exhibited the same anxiety to get on as quickly as Watford has.

Willow Lane got one step further, a letter having been received from the London Housing Board approving tender accepted by the Council for streets and sewers, and the Clerk reported that the former body had verbally approved of the tender of the Garden Cities Housing Co. for the forty houses, subject to Clause 40 and Tables 3 and 4 of the Model Form of Contract being incorporated in Contract.

The Wiggenhall Scheme also advanced by a definite arrangement having been come to with regard to the relative values of the portions for building and other purposes.

The Housing Committee's Meeting on October 30th received the report that the Contract for Streets and Sewers for the Willow Lane Scheme had been executed.

With regard to the Harebreaks Estate, a proof was furnished of the unfortunate result of an Authority who is actually responsible for the carrying out of certain work, having at every turn to get the approval of several other supervising authorities.

It had been decided, as I have previously stated, to advertise for tenders for the first instalment of 47 houses on Harebreaks Estate, but after these were received, the Committee, on October 30th, received a letter from Mr. Harris stating that the London Housing Board had informed him it was not the intention of the Ministry of Health to sanction houses the cost of which would be more than \pounds 800, and therefore, the Council should consider whether a certain percentage of parlour houses should be omitted, and substitute houses similar to those at Willow Lane.

The Surveyor reported that he had written to Mr. Harris making some suggestions as to where reduction in cost might be made, and the Committee reported as follows:—

"They expressed their surprise at the action of the Ministry in stating (after having passed the plans, and having all the facts before them before Tenders were considered), that the houses should not cost more than £800. They approved of the Surveyor's suggestions, and also that the two schemes for the 47 and 40 houses be regarded as one, providing there is no adverse effect on the subsidy and rents. They state they entirely disapprove of the non-parlour type of house, and consider that no reduction should be made in the accommodation."

A conference was afterwards held with the London Housing Board re 47 houses—the first instalment on Harebreaks.

NOVEMBER.—At the Council Meeting on November 4th, a report of the above Conference was made, and the Council accepted the arrangements suggested by the Commissioner of the London Housing Board in a letter dated November 3rd.

The letter stated that with a view to expediting the commencement of the necessary work, he would be prepared to sanction the proposal to pool the 47 houses and the 40 houses, averaging the cost thereof, subject to such modification as may be required by his surveyor, and on the understanding that the Council will give an undertaking to provide 40 single living-room houses on the Harebreaks Estate and 40 of similar type on the Wiggenhall Estate, when that is developed.

Thus, in order to strike "the keynote of urgency," as mentioned in the Ministry's Memorandum, No. 8, the Council had to agree to accept an important alteration in their plans for Harebreaks, and tie their hands to a certain extent in their lay-out of Wiggenhall, an arrangement which in each instance did not tend to raise the general standard of house accommodation.

The Council further resolved to accept the Tender of the Garden Cities Housing Co. for 47 houses on Harebreaks Estate, amounting to £50,947 Os. 8d., subject to the approval of the Ministry of Health and any other necessary authorities.

At an extraordinary Council Meeting it was reported that the Ministry of Health had held an enquiry with regard to purchase of land adjoining Harebreaks. This was to be used for allotments, but a small portion would be available for building.

At the Housing Committee, November 25th, two more G. H. Memorandums were received, Nos. 13 and 14, the first being the more important as requiring financial statements of income and expenditure with regard to Housing Schemes, and involving the fixing of a rent for the 40 Willow Lane and the 47 Harebreaks Estate houses as soon as sanction was received from the Ministry in respect of these houses.

HAREBREAKS ESTATE.—With the object of preventing any unavoidable delay, Mr. Vincent Harris wrote on the 18th instant asking the Committee to select a firm of printers for printing Bills of Quantities for the next contract, and this matter was referred to Mr. Julian to make a recommendation.

Mr. Harris also suggested that, with reference to the second portion of the Contract (the quantities for which were now being prepared by the Quantity Surveyor), the Ministry be asked to sanction the second portion to be carried out on a prime cost basis, but the Clerk reported that, although he had made the suggestion to the London Housing Board he had received no reply. He was directed to press for an answer.

The immediate starting with the main centre roadway at Harebreaks, and setting out of the 47 houses were considered, and the necessary directions were given to do all that was possible.

Mr. Harris was also authorised to have use of plan of Willow Lane Houses in order to arrange for erection of 40 of this type on Harebreaks, as required by the Ministry.

WILLOW LANE SCHEME.—Various matters connected with expenditure were considered, and it was found advisable to authorise the Accountant to interview the London Housing Board with regard to their sanction for Loan and other financial matters, still unsettled. The Surveyor reported an interview and correspondence with the London Housing Board with regard to the variations required by them in the Bills of Quantities when they gave their general sanction to the specifications in August. DECEMBER. WILLOW LANE AND HAREBREAKS.—At a Meeting of the Housing Committee, the Surveyor reported that it was advisable for him to attend with the Contractors a conference to be held at the London Housing Board with reference to certain matters connected with the priced Bills of Quantities.

At the Housing Committee on December 15th, a letter dated the 12th December from the London Housing Board was received, saying that the Ministry of Health were anxious that Housing Schemes should be expanded to the fullest extent, and asking the Council to take steps to press forward at once with the lay-out of the remaining portions of their building land.

HAREBREAKS AND WILLOW LANE SCHEMES.—The Clerk reported correspondence with the London Housing Board with regard to sanction of Contracts for above schemes, which, although accepted by the Council, had yet to be approved by the London Housing Board and the Ministry of Health.

He especially reported a letter dated the 6th December, where he asked for confirmation of various points in connection with the Contracts for the 40 Willow Lane Houses and the 47 on Harebreaks, pointing out that this was necessary before he could get the final sanction of the Ministry to borrowing the necessary money, and authorising the contractors to start work.

On the 12th, an answer was received agreeing to the points named, and saying that the work may proceed forthwith, but a fresh complication had arisen by a letter dated December 11th having been received from the Contractors saying that they would only proceed with the work on the understanding that " the Ministry's Model Form of Contract without alteration is to be used."

This was refused by the mousing Committee as it was reported that the Council's Form of Contract was that to which the firm tendered.

The Housing Committee, December 16th, considered that it was so important to commence work that another meeting was held the next day at which the Clerk reported the passage of various telegrams between him and the Contractors, the final one from the latter being: "Can only accept Government Form in its entirety."

It was decided that a deputation should interview the London Housing Board. At a meeting of the Housing Committee on December the 22nd, the Clerk reported the result of an interview which amounted to a forced acceptance of the Government Model Form of Contract, although the Housing Committee after closely examining it and hearing the opinion of their Clerk had come to the conclusion that it had many defects, did not provide sufficient protection for the Council, and was altogether an inefficient substitute for their own Form.

At a Public Health Committee Meeting on December 30th, the Surveyor submitted the lay-out, plans of roads, sewerage and water mains of the Harebreaks Estate, and stated that two sets would be ready for the Ministry of Health in a few days time.

This brings us to the termination of the year's work on housing, and, although hopes were often high during the period considered, none of the three schemes had produced a house nor had they proceeded as far as the laying of the foundations of one.

In Willow Lane the Street and Sewerage Work was commenced, at Harebreaks the plans for this work were ready but not finally passed by the Ministry, and the Wiggenhall Estate was being surveyed for the purpose of a layout.

II.

(1). It was found on the House to House Survey of the houses inhabited by the industrial classes during the early part of the year, that in a very considerable number of cases houses were occupied by two families; the number roughly speaking amounted to 720. In addition, were the cases of large families, where it was impossible to get a house with more bedroom accommodation and larger living rooms.

(2). The cause of this state of things was the failure of the supply of new houses to keep pace with the advancing industrial requirements of a growing place like Watford, and a contributory cause of much less magnitude was the influx of families from the London District during the Air Raids, some of whom have remained in Watford.

For reasons quite clear to the builders themselves, it no longer answered their purpose to build houses for the working class for some years prior to the year 1914, and during the War building in Watford was in a state of suspension as in other parts of the country, and the activities in this direction by the Council itself were adversely affected.

They had already made a start in building houses for the working class by erecting 22 houses, and had everything ready to provide another instalment, with the probability of further additions to the number in the future, but a sudden stop was necessarily made on the declaration of War.

Although the Council took up the matter again, even before the conclusion of hostilities, and have been engaged in very active work on the subject ever since, no new housing facilities have yet been provided; although at the time of writing a small instalment of 40 houses are well on the way.

(3). With regard to measures taken to prevent overcrowding they have been nil, as it has been simply a choice between overcrowding or turning out into the street, there being nowhere else for the people to go to.

With regard to measures contemplated, the only effective one is to increase the supply of houses, and this the Council is pushing on with as quickly as possible.

(4). Any cases of overcrowding where there was the slightest chance of either getting house accommodation or inducing one of the families to go elsewhere has been dealt with by persuasive means, but no case has been taken into Court.

III. FITNESS OF HOUSES.

1. (a) The general standard of housing in the District, although better than in many places, is not really of a satisfactory character.

A large number of houses for the working classes were built during the 20 years from 1890 to 1910, but when I say that the majority of these were of the speculative builder's type, I have described them sufficiently.

A good many of the houses belonging to old Watford still remain, although a proportion were done away with each year previous to 1914, and those that were put in a habitable state of repair as a result of action taken by the Council before that date, have so far deteriorated during the past five or six years as to be again unfit for purposes of habitation.

(b). The general character of defects found to exist

in the unfit houses may be taken under two categories. Under the first head the defects are due to the original plan of the houses, where certain necessary requirements have never been supplied.

These include separate and proper closet accommodation, separate water supply, and other provisions for proper cleansing of home, utensils, and person, no satisfactory place for the storage of food, absence of light, and insufficient means of ventilation.

Inadequate air space round the house is sometimes due to the original plan of the houses, in other cases, to encroachments of buildings at a later date. In other cases, the situation of the houses is unsatisfactory owing to dampness, and in others, the original construction without damp-proof courses causes continual dampness of walls during winter.

Under the second denomination come general deteriorations in the house and structural dilapidations that render it unfit for dwelling purposes.

Illustrations of these are broken guttering or its entire absence, leaky roofs, rotten floors, foulness of yards, and these in many instances are accompanied by such a state of extensive general deterioration, that the attempt to repair only makes matters more hopeless by revealing further defects.

(2). The action taken under either the Public Health or Housing Acts has of necessity been only of a preliminary nature.

Although early in 1919 I drew attention to 211 houses unfit for habitation, 11 of which were, in my opinion, incapable of being made fit, the difficulties of the situation have prevented the local Health Authority from proceeding to take active means to enforce either the demolition or the execution of the work necessary to make the houses fit for occupation.

3. These difficulties are: first, that there are no other places for the inhabitants to go to, either if the houses were closed permanently, prior to demolition, or temporarily, for the necessary work to be carried out.

The Council have carefully considered the matter and come to the conclusion that even the unsatisfactory accommodation afforded by the scheduled houses is better than no accommodation at all, which is the only alternative to closure, and as it is hoped during the year 1920 to complete a substantial proportion of the new houses required, they came to the conclusion that the better course was to confine the demands of the Public Health Department to such alterations and repairs as could be effected without closing the houses and ejecting the tenants.

This opinion was strengthened by the fact that the cost of material and the labour are so high now, and the returns to the landlord are so unremunerative, that, should we insist on all that is necessary being done, we should simply force the owner into permanently closing the houses.

This result might, from a Public Health point of view, be a desirable one in normal times, or when we have provided further housing facilities, but at present it would only lead to an aggravation of the present much to be deplored condition of overcrowding.

Finally, putting all these problematical considerations on one side we shall undoubtedly very soon be faced by the hard facts that all the available labour in the Building Trades will be entirely absorbed in the carrying out of the Housing Schemes, leaving no surplus of any value for other purposes.

4. Nothing of material interest remains to add with regard to water supply, closet accommodation, and refuse disposal especially applying to housing.

All these services have in the past been quite efficient, and the year 1919 was no exception to this rule.

I have already insisted upon the provision of separate closet accommodation and a separate water supply, accompanied by a house refuse receptacle for each family, and the absence of these only exists amongst those houses enumerated in the Schedules presented to the Council under Part I and II early in 1919.

IV. UNHEALTHY AREAS.

(1). At the same time (February 4th), as I made a representation with regard to Part I, I also reported on Unhealthy Areas under Part II of the Housing of the Working Classes Act, and six areas containing in all 249 houses were scheduled to be dealt with.

2. These areas were visited in March by the Housing Sub-committee.

The Public Health Committee on September 23rd recommended that the representation of the Medical Officer of Health, dated February 18th, and the recommendations of this Committee, dated 25th March, 1919, be submitted to the Ministry of Health with the intimation that an outline scheme for dealing with them would be prepared by the Medical Officer of Health and forwarded at a later date.

In May, I had made a preliminary report, and the Committee decided that the matter should come up again for consideration after the passing of the Housing Bill.

The following comprises my suggestions made to the Public Health Committee on May 20th, 1919:—

Nos. 1 and 2. Meeting Alley and Grove Circus Areas (including Butcher's Yard, Meeting Alley, Grove Circus, and Beechen Grove).

Whatever else is done here, the opportunity should be taken to make a good road through from the High Street to Beechen Grove, and this might be done either (1) by widening Meeting Alley, which would involve the demolition of Messrs. Rogers and Son's Offices, or (2) by making a new road straight through the area, when one or more shops higher up the High Street would have to come down.

The cleared area should then either be left as an open space, or used for the provision of buildings for the purposes of entertainment or warehousing. If the road passed through the centre, shops might be built on either side, but I do not think the situation a desirable one for dwelling houses.

No. 3. Ballards Buildings (including Day's, Chandlers, and Kerr's Lodging Houses).

There is only one use to which this area can profitably be put, and this is a most suitable one.

The whole area should be cleared and used as a new market place, the present slaughterhouse of Mr. Fisher's, adjoining, purchased and converted into a Public Abattoir with the addition of a Waste Eliminator Plant for the profitable treatment of offal and diseased meat.

No. 4. New Road Area (including New Road, Chapman's Yard, and one side of Woodman's Yard).

This area might, I think, be utilised again for housing purposes.

After demolishing the present houses, a new road might be made with houses on each side, thus giving a fair amount of garden ground at the back.

The direction of the road might be on the present line

of Chapman's Yard, and the gardens would slope down to Woodman's Yard on the one hand, and the L. and N.W. Railway on the other.

No. 5. Fox Alley Area (including 206 and 208, High Street, and Cricketers Arms).

Here it is simply a matter of demolition with a view to doing away with unsuitable houses and widening Fox Alley, so as to make a good road into the High Street from Watford Fields.

No. 6. Lower High Street Area.

The demolition of the houses in this area would enable the widening of High Street to be continued to the Bridge, and would do away with houses that have in the past been subject to unhealthy flooding in times of abnormally wet weather.

It would be possible to re-erect houses further back, but special precautions would probably be necessary against dampness of the lower storey, and this part of the town is not a very suitable one for dwelling houses.

(2) The difficulties of proceeding with improvement schemes are the same as those already mentioned under the head of unfit houses, and all the Council can do at the present is to carefully prepare schemes and obtain the Ministry's approval of them.

The actual carrying out of the work must of necessity be delayed till fresh housing facilities are available, and an adequate supply of the necessary kinds of labour.

(3) No complaints have been received by the Public Health Authority with regard to the areas, and the Council have taken what action they have on the recommendation of the Medical Officer of Health.

V.

With regard to by-laws relating to houses it would be advisable to have these so modified as to give greater elasticity, allowing cases to be decided more on their merits with due regard to any special circumstances that may exist in particular instances.

In the case of offensive trades, common lodging houses and the like, the by-laws should, I think, have a clause allowing the residents in a district the right of veto on the establishment of any such trade or building in their midst if such action be supported by the majority of the inhabitants of the neighbourhood.

SURVEY OF HOUSING NEEDS.

Summary of information obtained and supplied to the Housing Commissioner during 1919.

POPULATION.

Pre-war population (1914)	45,000
Average annual increase of population for the	
five years before the war	1,100
Estimated present population	50,502
Anticipated increase of working-class popula-	
tion due to industrial changes	2,500
EXISTING HOUSING ACCOMMODATION.	
Number of dwelling houses in the District	10,089
Number of working-class houses of the type .	
given in the reply to question 15	7,741
Average number of working-class houses built	
annually during the five years before the	
war	138
Number of working-class houses built between	100
January 1st, 1915, and December 31st, 1918	193
Number of empty buildings which might be	100
(a) made suitable, by repairs or alter-	
ations for housing the working-class; or	
(b) converted into flats for the working-	
class	(a) Nil
	(b) Nil
Overcrowding.	
and the second se	
Tenements with more than two occupants per r	
Number of Tenements	Nil
Total number of occupiers	Nil
Number of houses intended for one family only	
which are now occupied (without having	
been specially adapted) by two or more	
	~00

720

RENTS.

...

...

. . .

families ...

Particulars of prevailing rents of the various types of working-class houses in the District :---

	Type of House.	Weekly Rent.
(a)	Houses with living room. scul-	
	lery, and two bedrooms	3/6 to 5/0 inclusive.
(0)	Living room, scullery, and three bedrooms	5/6 to 6/3 "
(c)	Parlour, living room, scullery	[very few
	and two bedrooms	7/- inclusive,
(d)	Parlour, living room, scullery,	
	and three bedrooms	8/- to 12/6 "
(e)	Parlour, living room, scullery,	[paying rates
	and four bedrooms	10/- to 12/6 tenant
(f)	Tenements in block buildings	Nil
(g)	Other working-class dwellings	Nil

ESTIMATE OF HOUSING NEEDS.

Working-class houses required during the next three years to: No. of houses.

		NO. OI HOUSES
(a)	Meet the unsatisfied demand for houses	
	(taking account of growth of popu- lation, overcrowding, etc.)	1,092
(b)	Re-house persons to be displaced by	
	the clearance of unhealthy areas	249
(c)	Replace other dwellings which are un-	
	fit for human habitation, and can-	
	not be made fit	11
(d)	Replace obstructive or other buildings	
	(now inhabited, and not included un-	
	der (c) which should be demolished	14
(e)	Replace other houses which, although	
	they cannot at present be regarded as	
	unfit for human habitation, fall defi	
	nitely below a reasonable standard	200
(f)	Meet anticipated deficiences, e.g. a-	
	rising from new industrial develop	
	ment	480
	Total	2,046

Areas which are being or may have to be dealt with as unhealthy under Part I or Part II of the Act of 1890.

Area.	Reference No. on Map.	Apropximate Acreage.	Whether already of- ficially represent- ed as unhealthy.	No. of Houses.	Approximate Population.
Meeting Alley	 I	I.IO	Yes	52	212
Grove Circus	 2	.12	Yes	II	48
Ballards Buildings	 3	.65	Yes	57	298
New Road		2'7I	Yes	52	239
Fox Alley	 5	.43 .88	Yes	14	51
Lower High Street	 4 5 6	.88	Yes	16	47
Well's Yard		.68	No	32	1354
Chater's Yard	 78	.19	No	15	74
Totals		6.81 acres		249	1,104

Insanitary Houses (other than houses in unhealthy areas of which particulars are given in Section III).

PREVAILING CONDITIONS.

(1).	How many inhabited houses are there in the District which are not and cannot be made	
	fit for human habitation ?	11
(2).	Number of persons inhabiting these houses ?	50
(3).	How many houses are already subject to (a) Closing Orders ?	Nil
	(b) Demolition Orders ?	Nil
(4).	How many houses are seriously defective but can be made habitable ?	200

PROPOSED ACTION.

(5). What immediate action is contemplated by the Local Authority with regard to

(a) Houses which are not and cannot be made fit for human habitation?

80 new houses will be ready within 12 months and others of the 800 planned to date will be completed at as short intervals as possible.

(b) Houses which are seriously defective but can be made habitable ?

Serve notices under Section 28 of the Housing Act, 1919, to make habitable.

(6). Within what time is it contemplated that conditions will be such as to warrant the demolition of the houses which are not and cannot be made fit for human habitation ?

> Considering the demand for houses as the result of overcrowding, the District Council feel that even those houses that are unfit should not be demolished until the overcrowding requirements are met, which will not have taken place probably for two or three years. Although these houses are scheduled as unfit, it is considered that the conditions of the tenants are better than those of people living two or three families in one house.

JOINT ISOLATION HOSPITAL REPORT.

The number of admissions to the Hospital showed an increase over the previous year, the figure amounting to 252 compared with 149.

This was largely due to a considerable number of Scarlet Fever cases coming from Watford Urban District in the latter part of the year, and in a minor degree to an increase in Diphtheria from the Watford Rural District.

In Ho	spital on J	anuar	y 1st, 1919		12
Cases	admitted	from	Watford Ur	ban District	184
,,	"	"	" Rur	al "	45
,,	"	"	Bushey Urb	an "	11
,,	"	"	Rickmanswo	orth "	1
"	"	. ,,	Chorley Wo	ood "	11

Total 264

The following figures show the work of the Hospital during 1919.

Patients discharged cured during 1919	 202
Patients died in Hospital during 1919	 3
Patients in Hospital January 1st, 1920	 59

Total 264

The 59 cases were made up of 55 cases of Scarlet Fever and 4 of Diphtheria.

Although we had a run of Scarlet Fever none of the cases were fatal.

Measles was introduced into the Scarlet Fever Ward by a patient suffering from this disease being sent into the Hospital as a Scarlet Fever case.

Whooping Cough was also introduced by a child admitted in the early stage of the complaint, before the characteristic whoop was developed.

Neither this case nor another admitted later with the same complications gave rise to any others in the Hospital as they were isolated at once as soon as any sign of the disease appeared.

The Measles cases amounted to about 12, and they were, of course, placed by themselves as they appeared, and all made satisfactory recoveries, including one child that had Pneumonia as a complication.

Of the two cases of Smallpox admitted to the Smallpox Hospital at Holywell, one proved fatal and the other recovered.

The fatal case had not been vaccinated.

The two deaths amongst the 76 cases of Diphtheria were due to septic poisoning, the disease in each instance being of a virulent type. Three cases of Laryngeal Diphtheria occurred where tracheotomy had to be performed, and these all recovered.

One case of Epidemic Cerebro Spinal Meningitis was admitted from the Urban District of Watford, and made an excellent recovery.

Two cases of Erysipelas were taken into Hospital, and two cases of babies were admitted to an Isolation Ward suffering from Epidemic Diarrhœa.

The following	table show	rs the adr	nissions	during 1	1919:
District.	Scarlet Fever.	Diphth- eria.	Enteric Fever.	Other Diseases	s. Totals
Watford Urban	128	48	3	5a	184
Watford Rural	20	23	1	16	45
Bushey Urban	6	5	-	-	11
Rickmansworth Un	ban 1		-	-	1
Chorley Wood Url	Ict. Fever. eria. Fever. Diseases. Totals d Urban \dots 128 48 3 5a 184 d Rural \dots 20 23 1 1b 45 Urban \dots 6 5 - - 11 Insworth Urban 1 - - 1 Wood Urban 9 - - 2c 11				
Totals	164	76	4	8	252

a This number includes 1 Measles; 1Cerebro Spinal Meningitis; 1 Erysipelas; 2 Epidemic Diarrhœa.

b This number represents 1 Erysipelas.

c This number represents 2 Smallpox.

In concluding my Report I should like to insist on the following points as being of urgent importance, and requiring the serious consideration of both the Council and the Public.

The establishment of a Public Abattoir.

The erection of a Waste Eliminator Plant in connection therewith.

The formulation of Milk Regulations and a milk distributing, cleansing, and cooling centre.

The establishment of a herd of cows by the Council for the supply of pure cooled milk for babies under one year of age.

Greater control of Tuberculosis in order to exercise more restrictions on the spread of the disease, and greater **ability to supply more favourable surroundings for cases** suffering from this complaint.

Besides these special considerations, a general simplification of procedure for obtaining better health conditions, and a greater lattitude to the Public Health Department should be insisted upon by the Public.

If a condition of matters exists in a District that is undoubtedly a danger to the health of the inhabitants it should be within the power of the Public Health Authorities to have this rectified without being blocked at every turn by legal restrictions and quibbles as now is the case. It is for the benefit of the public generally, that these enlarged powers should be conferred on Public Health Departments, and it is for the former to interest itself in obtaining them.

During 1919, my Department has had the sympathetic support of the Public Health Committee and the Council, and I should like to take this opportunity of expressing its appreciation of the energy displayed, especially on the Housing question, by the Chairman of the Council, the Housing Committee, and all the Heads of Departments concerned.

No one but those who have had special opportunities of judging can realise the strain and hard work entailed on the Chairman, and the unselfish way in which he has sacrificed his time and opportunity for leisure in the interests of the town.

Although many have felt disappointed at what they consider the slow progress of the work, I can assure them, that it is largely due to the Chairman of the Council and the Housing Committee's energies that the schemes have got so far forward as they have.

I have the honour to remain,

Gentlemen,

Yours obediently,

ARTHUR KING.

CAUSES OF DEATH IN WATFORD DISTRICT FOR THE YEAR 1919.

CIVILIANS ONLY.

CAUSES OF DEATH.	Males.	Females,
ALL CAUSES	225	284
1 Enteric Fever	-	-
2 Smallpox 3 Measles	-	- 9
3 Measles 4 Scarlet Fever	-	
5 Whooping Cough	4	2
6 Diphtheria and Croup	1	-
7 Influenza	16	23
8 Erysipelas		-
9 Pulmonary Tuberculosis	20 1	22 1
10 Tuberculosis Meningitis	3	5
11 Other Tuberculosis Diseases		50
12 Cancer Malignant Disease 13 Rheumatic Fever		3
14 Maninaltia	2	3
15 Owner Hand Dia	23	35
16 Bronchitis	21	18
16 Bronchitis .	11	11
18 Other Respiratory Diseases	2	$\frac{4}{2}$
19 Diarrhoea, etc. (under 2 years)	-	5
20 Appendicitis and Typhitis	5	
21 Cirrhosis of Liver	_	_
21a Alcoholism	13	5
22 Nephritis and Bright's Disease	-	5
23 Puerperal Fever		
24 Parturition, apart from Puerperal	-	5
Fever	6 5	5
25 Congenital Debility, etc 26 Violence, apart from Suicide	0	1
	70	81
28 Other Defined Diseases	_	
29 Causes Ill-defined or Unknown		
Carolan Cainel Es	-	_
Cerebro-Spinal Fever Poliomyelitis	-	-
1 0110 myentus		
Total Deaths of Infants under 1 year	. 10	
of age	19 3	17
Illegitimate		4
Total Births	323	301
Legitimate	101	285
Illegitimate	22	'6
Population for Birth Rate Population for Death Rate	48,113 46,187	

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1919. WATFORD URBAN DISTRICT.

•

1								-	-			-				-	-
	Total cases	Hospital			48	138	33		1	1	1	1	1	11	1		191
	ach		Охред		9	10			1	-	1	I	67	20 60	a	0	106
	ed in e	pu	Callowlan		29	71	63		1	1	1	67	4	380	00	00	539
	Total cases notified in each locality	844	St. Andre	1	10	6	-		1	1	1	1	5	162		'n	104
	ul cases		suəənH		œ	21	۱		1	63	1	1	-	238		0	301
	Tota		szaiN		16	969	۱		1	~	1	35	10	448	00	87	619
.10			-qu 2 бд збтяw		1	- 1	1		1	1	1	1	1	11	2	1	4
TOTUTOTO NERVO	iet		88 oj 8₽		1		1		I	1	1	1	4 (≈	2	5	.20
AN D.	e Distr	93	07 07 9 8		60	4 65	1		i	9	1	1	2	14	34	63	74
and o	n whol	At ages	15 to 25		9	33	1		1	1	I	1	10	-	34	5	- 89
WAIFURD	notified in whole District		čí ot ä		38	134	۱		1	1	i	١	1	886	6	10	1,073
MA	Cases no		đ ot I		16	14	۱		1	1	1	1	80	331	1	-	372 1
	Ca		I 19baU		1	11	1		I	1	1	9	1	13	1	1	18
		89)	ge lle fA		64	11	60		1	9	1	9	25	21	87	12	1,629
	NOTIFIABLE DISEASES		Small Pox Cholera Plague	Membraneous croup)	Erysipelas Scarlet Fever	Typhus Enteric Fever	Relapsing Fever	Cerebro Spinal Meningitis	Puerperal Fever	Follomyellus Encembalitis Lethargica	Ophthalmia Neonatorum	Pneumonia	Measles	erculesis	Other Forms of Tuberculosis	Totals	

65

REPORT OF WORK CARRIED OUT BY TH	
SANITARY INSPECTORS DURING THE YEAR	
Visits to Common Lodging Houses	68
" Courts and Alleys	and the second se
" Infected Houses	
" Work in Progress	
Houses Inspected	
Houses re-Inspected	
Houses Inspected (Housing & Town Planning Act)	
Houses re-Inspected " " "	215
Houses Visited and enquiries made re-Overcrowding	
for Housing Survey Report	7325
Workshops Inspected)	
Bakehouses ")	261
Factories ")	
Inhabited Vans Inspected	12
Urinals Inspected	19
Manure Pits Inspected and Sprayed	
Visits to Schools re-Infectious Diseases	-44"
" Ice Cream Manufacturers	
Nuisances Investigated	100
Miscellaneous Visits	0~1
House Drains Tested	00
Communication into a la la	
T I' D I I I I	01
	01
Duclinian Nation 1	500
I amal Nationa Samuel	583
Legal Notices Served	111
School Notices served after Infectious Disease	
Letters sent	016
Number of Licenses granted under Petroleum Acts	
Cowsheds and Dairies Inspected	
Milkshops Inspected	
Slaughterhouse Visits	
Visits to Market	
Offensive Trades	82
Visits to Food Preparing Places	311
" Fish Shops	360
" Butchers' Shops	562
"re Food Control	827
" Mill Stream, Spraying, etc	. 96
" Shops Act	42
" Rats and Mice Act	12
" Army	545
" Smallpox Hospital	32

TABLE SHOWING EXTENT OF JUBERCULOSIS PROCESS IN ANIMALS EXAMINED, YEAR ENDING DECEMBER 31st, 1919.

•

	Entire Carcases Condemned owing to Tuberculosis,	247 Cows. 15 Heifers. 2 2 Bullocks. 8 Bulls. 292	I	3 Pige.		295
	Udders.	96	1	1	1	96
	Mesentery.	245	1	4	1	249
	Serous Membranes,	215	1	1	1	216
	Uteri.	36	1	1	1	36
Abdomen.	Intestines.	167	۱	63	1	159
Abdo	Kidneys.	171	1	~	1	174
	Spleens.	163	1	33	1	166
	Stomachs.	181	١	1	1	181
	Livers.	243	1	11	1	254
	Serous Membranes,	229	۱	5	1	231
Thorax.	Heart and Pericardium.	208	1	4	1	212
I	.eZauJ	470	1	11	1	481
	.sbseH	449	1	6		458
	Of which were Tuberculous,	442 Cows 25 Heifers 43 Bullocks 11 Bulls 521	1	13	1	534
	Number Examined.	7,956	21,799	1,629	1,899	33,283
	Kind of Animal.	÷	:	:	:	Totals
	Kind o	Beasts	Sheep	Pige	Calves	To

FOOD INSPECTION.

CARCASES EXAMINED.

Sheep.

21,799

Beasts. 7,956

Pigs	
1.629	

Calves. 1,899

CONDEMNED AND DESTROYED.

1389 St. 2lbs. English Beef. 78 st. 6lbs Frozen Beef. 8 Bulls and all Organs 24 Bullocks and all Organs 268 Cows and all Organs 16 Heifers and all Organs 14 Calves and all Organs 8st. Veal 290 Beasts' Lungs " Liver 375 150Udders 226 Heads 206 ,, Tongues Other Organs " 91 80 Sheep and all Organs 2st. Mutton 74 Sheeps' Pluck 23 " Heads 126 Lungs 5 Pigs and all Organs 14st. Pork 4 Pigs' Heads Plucks 6 " 36lbs. Suet 1 Box Tripe 1 " Oxtails 45 Tins Corn Beef

4 tons 13cwt. 1qr. 21lbs. Bacon

10cwt. 0qr. Hams
I Gammon
36 Rabbits
7 Boxes Bloaters
44 "Kippers
6 "Herrings
4 '' Mackerel
3 "Hake
2 Barrels Cod
2 Boxes Mixed Fish
$6\frac{1}{2}$ cwt. Cheese
28 Tins Milk
72lbs. Butter
4 tons 14cwt. 3qrs. 19lbs. Dates
32 Boxes Dates
1 Box Raisins
3cwt. Dried Fruit
2 Tons Bananas
42 Boxes Tomatoes
10 " Figs
6 "Greengages
4 " Apples
$5\frac{1}{2}$ ewt. Apples
1 Basket Brussel Sprouts
Total weight of Foodstuffs condemned as unfit for human
Food 159 tons

NUISANCES.

				Abated.	Out- • standing
Defect	tive Drains	 		35	8
Choke	d Drains	 		136	
"	W.C.'s	 		128	
,,	Gullies	 	·	61	

Defective	W. C.'s			67	3
"	Soil pipes and v	ents		18	3
"	Gullies			26	2
"	Sink Pipes			16	
"	Flushing Fittin			49	4
"	Sinks			7	2
"	Eaves Gutters,	and	rain		
	Water Pipes			134	29
"	Fresh air inlets			25	4
"	Roofs			33	3
"	Floors			17	
"	Inspection Chan	abers		17	
"	Ceilings			8	5
"	Chimneys			6	
"	Dangerous Wall	ls		4	1
"	Window Frames	s de s	sash		
	cords			42	3
Yard Pav	ving Repaired, e	te.		.10	2
Offensive	Accumulations			47	
Whitewas	shing, etc			148	29
Filthy He	ouses, etc			10	
	s Remedied			88	24
Dirty Clo	sets and Yards			41	
· Overcrow	ding			3	
Workshop	s Limewashed			101	
General 1	Repairs			83	23
Poultry &	Animals Impro	perly	kept	12	
	provided	-		12	
Extermin	ation of Rats			4	Premises.

DISINFECTION, ETC.

Rooms after Infe	ectious Dise	ases	 	 390
Rooms after Con	sumption		 	 54
Rooms after Cane	er		 	 18

Rooms for Vermin			 	13
School Rooms			 	76
Hospital Wards			 	35
Billets, after Army	Occupation	(Halls)	 	15
»»	"	(Rooms)	 	10

BEDDING, ETC., DISINFECTED.

Palliasses		. 74	Curtains		 22
Mattresses		. 106	Carpets		 19
Beds		. 119	Cloaks		 5
Pillows		. 205	Coats		 24
Bolsters		. 108	Boys' Suits	,	 15
Blankets		. 298	Caps		 4
Sheets		. 77	Rugs		 37
Bed Quilts		. 76	Dresses		 6
Counterpanes	.,	. 43	Sundries		 76
General Body	Linen	30 bdls	Eiderdown	8	 14

BEDDING, ETC., DESTROYED.

Beds			· · · ·	3	Sundries	 	25
General	Body	Linen		1	bdl. Mattresses		2

WATFORD :

GIBBS AND BAMFORTH (WATFORD), LIMITED

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CAREY PLACE.

1920.